Commands:

ACL:

* **getfacl filename** to check the permission on this file.
* **Setfacl –m u:parbs:rw accounts** modify permission of ‘parbs’ user to rw in ‘accounts’ file.
* **Setfacl –m u:ravi:--x account** Modify perm. of ‘ravi’ to only *Execute*.
* **Setfacl –m u:sam:--- accounts** Modify perm of ‘sam’ to Nill.

SED:

* **Sed ‘s/windows/Linux/’ file1 > file2** Change 1st instance of word ‘windows’ in every line to ‘Linux’ in file1 and save it to file2.
* **Sed ‘s/windows/Linux/g’ file > file2**  It will change all the instance of word ‘windows’ in a every line to ‘Linux’ in file1 & save it to file2.

**Env:** This command displays the environment variables for the currently logged-in user.

**Echo:**

* This command is used to echo a line of text on the screen. It’s frequently used to display environment variables. For example, if you wanted to see the current value of the PATH variable, you could enter   
  **echo $PATH**

**Uname:**

* **Uname –r** to check the version of installed Linux OS.
* **Uname –a** to check the kernel version of installed Linux OS. It also shows architecture of OS (x86 or, x64)
* **Arch** toshows architecture of OS (x86 or, x64)

**cat/etc/issue:** To know the distro and OS installed in Linux.

**Check current Java Version:** java -version

**What are the main differences between RHEL4 & RHEL5?**

* XEN, YUM and improved SELinux
* all the features updated with better options
* Better GUI support then RHEL4
* YUM over RPM package management
* IPTables and SELinux for more secure environment
* ext2 & ext3 file system
* In RHEL 4 SELinux Block only 13 services, But on RHEL 5
* SElinux Block 80 services
* RHEL5 supports both XEN and KVM hypervisor
* Open office has removed from server edition in RHEL5 and more hardware support than RHEL4

**New Features in RHEL6**

1. ext4 file system is introduced.  
   2. xen is removed and kernel virtualization machine (KVM) is introduced.  
   3. neat command is removed.  
   4. portmap service is removed.  
   5. iscsi is introduced, which supports for SAN.  
   6. rpmbuild is available, which is used to create our own rpms.  
   7. File encyption is added.  
   8. palimpsest is available for disk management.  
   9. Virtual machine will run only on 64bit processors.  
   10. postfix service is recommended instead of sendmail service

**Booting Issue:**

**Kernel Panic error** It is due to error in grub.conf file (/etc/grub.conf or, /boot/grub/grub.conf)

Sol: boot the system in rescue mode, select Language, Keyboard and once the file system is mounted, type following commands:

Chroot /mnt/sysimage

Vi /etc/grub.conf

Edit the file to default.

**\*\*\*\*\*Changing Runlevel for an instance from the booting: \*\*\*\*\*\*\*\***

* While booting, press Space bar on the grub splash screen.
* Select the linux image, press a to append
* Then press spacebar and enter the runlevel i.e. 1,2,3,5 and then press Enter.
* System will start in selected runlevel.

**\*\*\*\*\* Configure your own local Repositories: \*\*\*\*\*\*\*\*\***

[Source](http://how-to.linuxcareer.com/creating-a-redhat-package-repository)

* Here we will set our RHEL DVD as our source of repositories for package installation.

1. Make a directory to mount the RHEL DVD.

**# mkdir mycdrom**

1. Mount the RHEL DVD to newly created mount directory mycdrom:

**# mount /dev/cdrom mycdrom** or, **# mount /dev/sr0 mycdrom**

Note: use Sudo if it is mounting in Read-Only after unmounting it.

1. Check the path of the RHEL DVD source by running the command:

**# mount | grep iso9660**

**OUTPUT** ----- /dev/sr0 on /root/mycdrom type iso9660 (ro) ------

1. Create a new repository file in ‘/etc/yum.repos.d/’ directory:

**# cd /etc/yum.repos.d**

**# vi dvd.repo**

And enter the following line in ’dvd.repo’ using vi editor-

*[dvd-source]*

*name=rhel 6.0 dvd repo*

*baseurl=”file:///root/mycdrom/”*

*enable=1*

*gpgcheck=0*

* Now Test repository by command:

**# yum repolist**

**OUTPUT:**

*Loaded plugins: product-id, refresh-packagekit, security, subscription-manager  
This system is not registered to Red Hat Subscription Management. You can use subscription-manager to register.  
repo id repo name status  
RHEL\_6.4\_Disc RHEL\_6.4\_x86\_64\_Disc 3,648  
repolist: 3,648*

**Adding CentOS Repository for RHEL or any server:**

**mal**

[**http://techglimpse.com/configure-yum-rhel-centos-repository/**](http://techglimpse.com/configure-yum-rhel-centos-repository/)

**\*\*\*\*\*\* Configuring Yum Group install package \*\*\*\*\*\*\*\*\***

**http://www.cyberciti.biz/faq/rhel-yum-grouplist-groupinstall-option-not-working/**

**\*\*\*\*\*\*\*\*\*\*\*\* LVM (Logical Volume Manager)\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Creation of Logical Volume:**

**Pre-requisite-**

* **fdisk /dev/sdb**
* **Create new lvm partition from available disk.**
* **Then follow below steps.**

1. **pvcreate /dev/sdb1**
   * pvs - to check the status of Physical Volume.
2. **vgcreate vgofpd /dev/sdb1** (‘vgofpd’ is the name of new vg)
   * vgs - to check the status of Volume Group.
3. **lvcreate –n lvofsdb –L +200M /dev/vgofpd** (‘lvofsdb’ is new logical volume with flag –n; -L to specify the size of lv, we can also use –l to specify the logical extent instead,.
   * Lvs - to check the status of Logical volume.
4. **mkfs –t ext3 /dev/vgofpd/lvofsdb** or**,** **mkfs.ext2 /dev/vgofpd/lvofsdb**

**Extending Logical Volume:**

1. check for free disk space in VG using command **vgs**
2. If disk is not available, then extend the space of VG by using command from the available physical disk.

**vgextend lvofpd /dev/sdb2** (Sdb2 is the partition with available disk space).

1. Now since VG has a free disk space, we can extend the size of the logical volume using command

**Lvextend –L +100M –r /dev/vgofpd/lvofsdb**

Here,

**-r** to resize the lv but limited for ext2,ext3,ext4 file system.

**+** to add the specified size to existing disk size, otherwise it will overwrite and not extend. i.e, lv will resize to 100M instead of 300M (200M+100m).

**Reducing/Shrinking the Logical Volume:**

1. If partition is mounted, un mount it using command

**Umount /mnt**

1. **Lvreduce –L 100M –r /dev/vgofpd/lvofsdb**

Here, it will resize the disk of 300M to 100M and also resize the file system if it is ext2,ext3,ext4. For other file system –r will not work and need to manually resize the file system using command before resizing the lv.

**LVM permission:**

**Lvchange –pr vgofpd/lvofsdb** for read-only with ‘r’.

**Lvchange –prw vgofpd/lvosdb** for read-write with ‘rw’.

**\*\*\*\*\*\*\*\*\* RPM(Redhat Package Manager)\*\*\*\*\*\*\*\*\***

**Queries commands:**

#**rpm [switch] [package name]**

Switches-

|  |  |
| --- | --- |
| -a | Query all packages |
| -c | Lists all config files |
| -d | Lists all documentation files |
| -f | Displays information about the specified file |
| -i | Displays information about the package |
| -l | Lists the files in a package |
| -q | Query single package |
| -R | List the dependencies |