**How to use Linux environment in your raid1 after fall ?**

**What is mean by file system in Linux ?**

*It is a method of storing the data in an organized fashion on the disk. Every partition on the disk except*

*MBR and Extended partition should be assigned with some file system in order to make them to store*

*the data. File system is applied on the partition by formatting it with a particular type of file system.*

**How to install package in linux ?**

1. Installing from source used to be very common and also quite simple. You would download the source file, unpack it (with either zip or tar), change into the newly created directory, and then issue the commands:

./configure

make

make install

1. apt-get install autoconf

yum install yum-utils

1. Remote package manager

Rpm -ivh

**Kernel tuning?**

Performance Tuning in Linux related to Operating system optimisations Techniques by reconfiguring the parameters of the Kernel

**What is web application architecture?**

**Which commands are used for nfs file system ?**

*# mountstats Shows information about mounted NFS shares*

*# nfsstat Shows statistics of exported resources*

*# nfsiostat Shows statistics of NFS mounted shares*

**What is difference between dmg Vs non dmg**

A DMG file is an Apple Disk Image file.

Open one on a Mac automatically or with [HFSExplorer](http://www.catacombae.org/hfsexplorer/) or [7-Zip](https://www.7-zip.org/) on Windows.

**How to reset root password?**

*(i) Restart the system.*

*(ii) Using arrow keys select 1st line and press 'e' to edit.*

*(iii) Go to* ***Linux 16*** *line press End key or* ***Ctrl + e*** *to go to the end of the line and give one space.*

*(iv) Then type as* ***rd.break console=tty1 selinux=0***

*(v) Then press Ctrl + x to start the computer in single user mode.*

*(vi) After starting we get* ***swith\_root :/#*** *prompt appears and then type as follows.*

*(vii)* ***# mount -o remount, rw /sysroot*** *and press Enter and then type as follows.*

*(viii)* ***# chroot /sysroot*** *press Enter.*

*(ix) Then* ***sh - 4.2 #*** *prompt appears and type as*

*(x)* ***sh - 4.2 #passwd root***

*New password : XXXXXX*

*Retype password : XXXXXX*

*(xi)* ***sh - 4.2 # exit***

*(xii)* ***switch-root :/# exit***

**What is first line shell script?I**

It's called a shebang, and tells the parent shell which interpreter should be used to execute the script.

The function of the hashbang is to tell the kernel what program to run as the script interpreter when the file is executed.

scripts start with a #! ([hashbang](http://en.wikipedia.org/wiki/Shebang_%28Unix%29)). A hashbang header means that the file is a script and needs to be interpreted by the program that is specified after the hashbang. This allows a script itself to tell the system how to interpret the script.

**Suppose one application is not running on remote host , then what steps you will follow for troubleshooting ?**

1. **Check the hardware!**

ethtool eth0 ---🡪 Cable check

dmidecode --type memory

### Define the exact problem

sudo ps -ef | grep apache2

sudo netstat -plunt | grep apache2

service apache2 start

### Top

Line 1:

* The time
* How long the computer has been running
* Number of users
* Load average (the system load time for the last minute, last 5 minutes, and last 15 minutes)

Line 2:

* Total number of tasks
* Number of running tasks
* Number of [sleeping tasks](https://en.wikipedia.org/wiki/Sleep_(Unix))
* Number of stopped tasks
* Number of [zombie tasks](https://en.wikipedia.org/wiki/Zombie_process)

Line 3:

* CPU usage as a percentage by the user
* CPU usage as a percentage by system
* CPU usage as a percentage by low-priority processes
* CPU usage as a percentage by idle processes
* CPU usage as a percentage by I/O wait
* CPU usage as a percentage by hardware interrupts
* CPU usage as a percentage by software interrupts
* CPU usage as a percentage by [steal time](http://blog.scoutapp.com/articles/2013/07/25/understanding-cpu-steal-time-when-should-you-be-worried)
* Total system memory
* Free memory
* Memory used
* Buffer cache

Line 4:

* Total swap available
* Total swap free
* Total swap used
* Available memory

### 4.Check Disk space

### df -h -: resents data about your hard drives in a human-readable format

### df -I -: displays the number of used [inodes](http://www.grymoire.com/Unix/Inodes.html) and their percentage for the file system.

### df -hT -: hows both the amount of used space in your storage and its file system type.

### 5. Check the logs

### hese are usually in /var/log in a subdirectory specific to the service.

### dmesg | tail.

### dmesg | tail -f /var/log/syslog

### journalctl -b

### journalctl -b -1

**How to check partition uses ?**

## fdisk -l -:

## lsblk -: lists information about all available or the specified block devices

df -h

**How many Linux inventory server you handles ?**

**How to check file system utilization in Linux ?**

Df -Th

**Have you troubleshoot Linux server using commands ?**

**Ifconfig**

**ifup eth0** Enable eth0

ifdown eth0 Disable eth0

**ping -c**

**traceroute -:** network troubleshooting utility which shows number of hops taken to reach destination also determine packets traveling path

**Netstat -: c**ommand display connection info, routing table information etc

**netstat -r** -: To displays routing table information use option as **-r**.

**Dig** (**domain information groper**)-: **DNS** related information like **A Record**, **CNAME**, **MX Record** etc. This command mainly use to troubleshoot **DNS** related query.

**Nslookup -:** command also use to find out **DNS** related query

**route** command also shows and manipulate **ip** routing table

**ARP** (Address Resolution Protocol) is useful to **view** / **add** the contents of the kernel’s **ARP tables**

* Services running or not?

**SDLC ?**

In general, an SDLC methodology follows these following steps:

1. Analysis: The existing system is evaluated. Deficiencies are identified. This can be done by interviewing users of the system and consulting with support personnel.
2. Plan and requirements: The new system requirements are defined. In particular, the deficiencies in the existing system must be addressed with specific proposals for improvement. Other factors defined include needed features, functions and capabilities.
3. Design: The proposed system is designed. Plans are laid out concerning the physical construction, hardware, operating systems, programming, communications and security issues.
4. Development: The new system is developed. The new components and programs must be obtained and installed. Users of the system must be trained in its use.
5. Testing: All aspects of performance must be tested. If necessary, adjustments must be made at this stage. Tests performed by quality assurance ([QA](https://searchsoftwarequality.techtarget.com/definition/quality-assurance)) teams may include systems integration and [system testing](https://searchsoftwarequality.techtarget.com/definition/system-testing).
6. Deployment: The system is incorporated in a production environment. This can be done in various ways. The new system can be phased in, according to application or location, and the old system gradually replaced. In some cases, it may be more cost-effective to shut down the old system and implement the new system all at once.
7. Upkeep and maintenance: This step involves changing and updating the system once it is in place. Hardware or software may need to be upgraded, replaced or changed in some way to better fit the needs of the end-users continuously. Users of the system should be kept up-to-date concerning the latest modifications and procedures

**YUM Vs RPM**

|  |  |  |
| --- | --- | --- |
| **Sl No.** | **RPM** | **YUM** |
| **1** | **If we want to install an application(Ex: apache), rpm need to install all the packages required for this application, these packages may vary from 1 rpm to several rpm’s depending on shared rpm packages.** | **Install an application with single command** **Ex: yum install httpd** |
| **2** | **RPM package dependencies is bit tough** | **YUM resolves dependencies with ease** |
| **3** | **Batch installation of applications is possible with one command** | **YUM command can install number of applications in one single command** **Ex: yum install httpd vsftpd** |
| **4** | **RPM can not handle updated software installation automatically** | **Does YUM install updates of the existing packages by using** **yum install upgrade** |
| **5** | **Can not connect to online repositories** | **Can connect to on-line repositories to get latest software before installing the applications** |

**What is kernel panic ?**

In basic terms a kernel panic is a situation when kernel can’t load properly and fails to boot properly or crashes.

**Why does kernel panic happen?**

A panic may occur as a result of hardware failure or a software bug in the Operating System. Primarily, two things happen when kernel is unable to proceed : the Software runs out of resources and hardware does something unexpectedly or does not do anything.

This might happen due to hosed updates, failing hardware, failed or missing drive or partitions.

It also occurs in order to prevent your computer from data corruption, risking security breaches as system is in unstable state. So OS stops to prevent damage and facilitates diagnosis of the error and, in usual cases, restart.

**how to check file size between 100 mb to 130 mb in linux?**

find / -type f -size +4G -🡪 to check entire system

find Downloads/ -type f -size +4G -> to check in specific directory

find . -type f -size +4G -> To check in current directory

find -size +30M -size -40M -> **to check size between**

find -size 30M -> find exact size

find . -type f -size +30M -size -40M -exec ls -l {} +

**What is boot process ?**

**What is difference between suid and sgid ?**

**What is special file permission in linux ?**

Set uid (setuid)

Set guid (setgid)

Sticky bit

**Which file have setuid permission in linux ?**

**Search file with particular string in linux ?**

grep -H -r "redeem reward" /home/tom

egrep -w -R 'word1|word2' ~/projects/

**How to check file integrity ?**

#### Using FCIV tool