1. **App or DB server accessible only  from Botree network IP Addresses**
   1. **Tata IP: 115.160.248.91**
   2. **Reliance: 115.249.202.98**

1. **Sudo** **yum install redhat-lsb**
2. **Check the OS version for RHEL**

**$ cat /etc/os-release or $ lsb\_release –a**

1. **CHANGE Time to IST**

$ timedatectl set-timezone Asia/Kolkata

1. **History command with timestamp, need to execute this command after create the new user name**

Without time stamp : $ echo 'HISTTIMEFORMAT="%F-- %T--"' >> ~/.bashrc

**#echo 'HISTTIMEFORMAT="%Y%m%d %T "' >> /etc/profile.d/timestamp.sh**

# sudo echo 'export HISTTIMEFORMAT="%d/%m/%y %T "' >> ~/.bashrc

1. **Disable IPv6**
   1. **# sudo vi /etc/ssh/sshd\_config**

**Add this line**

AddressFamily inet

* 1. # sudo systemctl restart sshd
  2. sudo vi /etc/sysctl.conf

Add this line

net.ipv6.conf.all.disable\_ipv6 = 1

net.ipv6.conf.default.disable\_ipv6 = 1

* 1. # sudo sysctl -p

* 1. If you get problems with starting postfix after disabling IPv6, edit **/etc/postfix/main.cf** file;

# vi /etc/postfix/main.cf

and comment out the localhost part of the config and use ipv4 loopback.

#inet\_interfaces = localhost

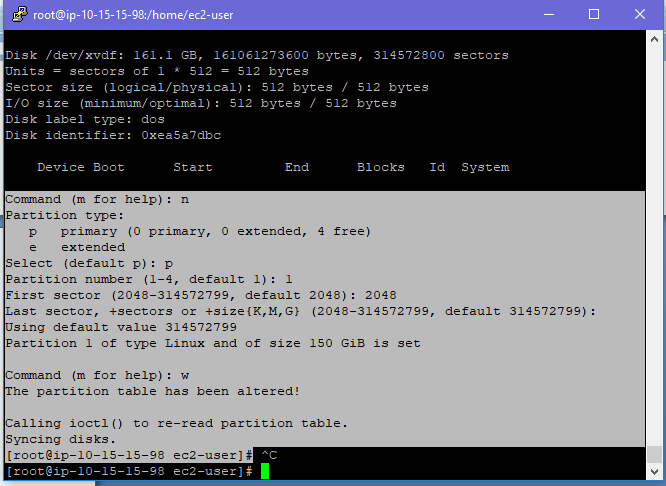
inet\_interfaces = 127.0.0.1

* 1. Then, restart ssh to reflect the changes.

# sudo systemctl restart sshd

1. **CHANGE Time to IST**

$ timedatectl set-timezone Asia/Kolkata

1. **yum update**
2. **Create the Volume EBS** 
   1. fdisk -l (Disk /dev/xvdf: 161.1 GB, 161061273600 bytes, 314572800 sectors)
   2. fdisk /dev/xvdf
   3. Command(m for help):
   4. 
   5. fdisk –l
      1. New disk name /dev/xvdf1
   6. A) mkfs.ext4 /dev/xvdf1

OR

B) mkfs.xfs /dev/xvdf1

* 1. mkdir /mnt/ebs1/
  2. mount /dev/xvdf1 /mnt/ebs1/
  3. # blkid
     1. /dev/xvdf1: UUID="3de4431c-a3d4-4457-a059-33bb60529cad" TYPE="ext4"
  4. Make an entry in **/etc/fstab** file for permanent mount at boot time.
     1. Edit fstab
     2. Add the line -

UUID=3de4431c-a3d4-4457-a059-33bb60529cad /mnt/ebs1/ xfs defaults 1 1

* + 1. Save and exit

1. **Swap memory**

1. In this example, we will create a swap file of size 10GB using the dd command as follows. Note that bs=1024 or 1 M means read and write up to 1024 bytes at a time and count = (1024 x 2048)MB size of the file.

# sudo dd if=/dev/zero of=/mnt/ebs1/swapfile bs=1M count=10240

And then set the appropriate permissions on the file; make it readable only by root user as follows.

# sudo chmod 600 /mnt/ebs1/swapfile

2. Now setup the file for swap space with the mkwap command.

# sudo mkswap /mnt/ebs1/swapfile

3. Next, enable the swap file and add it to the system as a swap file.

# sudo swapon /mnt/ebs1/swapfile

4. Afterwards, enable the swap file to be mounted at boot time. Edit the /etc/fstab file and add the following line in it.

/mnt/ebs1/swapfile swap swap defaults 0 0

**total used free shared buffers cached**

Mem: 491 460 30 164 30 228

-/+ buffers/cache: 202 289

Swap: 0 0 0

**Here's the free memory after**

**total used free shared buffers cached**

Mem: 491 485 5 122 21 323

-/+ buffers/cache: 140 350

Swap: 511 0 511

**Here are the steps I took to enable swap space**

$ dd if=/dev/zero of=/mnt/ebs/swapfile bs=1M count=65536

$ mkswap /mnt/ebs/swapfile

$ chmod 600 /mnt/ebs/swapfile

$ swapon /mnt/ebs/swapfile

**You also have to edit your fstab file so the swap is available after reboot**

vi /etc/fstab

**Add the following to the bottom of the file - I made sure it lined up with the existing entries, but that's probably not necessary.**

/mnt/ebs1/swapfile swap swap defaults 0 0

**To disable your existing swap,**

# swapoff -a

1. **Java Installation**
   1. wget --no-check-certificate --no-cookies --header "Cookie: oraclelicense=accept-securebackup-cookie" http://download.oracle.com/otn-pub/java/jdk/8u181-b13/96a7b8442fe848ef90c96a2fad6ed6d1/jdk-8u181-linux-x64.tar.gz
   2. tar -zxvf jdk-8u\*-linux-x64.tar.gz
   3. mv jdk1.8.\*/ /usr/
   4. Install Oracle Java 8
      1. alternatives --install /usr/bin/java java /usr/jdk1.8.\*/bin/java 2
      2. alternatives --config java
   5. **Setup Environmental Variable**
      1. export JAVA\_HOME=/usr/jdk1.8.0\_\*
      2. export JRE\_HOME=/usr/jdk1.8.0\_\*/jre/
      3. export PATH=$JAVA\_HOME/bin:$PATH
   6. To set it as a permanent, place the above three commands in the “**/etc/profile**” (All Users) or “**~/.bash\_profile** ” (Single User)

**Java installation using rpm file**

Download the rpm file and move to server path

# yum install jdk-9.0.4\_linux-x64\_bin.rpm

# yum install jre-9.0.4\_linux-x64\_bin.rpm

#export JAVA\_HOME=/usr/java/jdk1.8.0\_191-amd64

#export PATH=$PATH:/usr/java/jdk1.8.0\_191-amd64/bin

Java –version

1. **Install wget**

$ sudo yum install wget

1. check server crash log
2. Install Apache2

# yum -y install httpd

# systemctl enable httpd or # systemctl disable httpd

systemctl start httpd, systemctl status httpd

1. **Install epel.7 ((Pre-request for PHP, redis-server,)**

$ sudo rpm -ivh https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm  
$ sudo yum update

1. **PHP 7.2 install**

Install epel after start install PHP

$ sudo yum -y install epel-release

$ sudo yum-config-manager --enable remi-php72

$ sudo yum update

$ sudo yum install php

# rpm -Uvh https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm

# wget http://rpms.remirepo.net/enterprise/remi-release-7.rpm

# rpm -Uvh remi-release-7.rpm epel-release-latest-7.noarch.rpm

# subscription-manager repos --enable=rhel-7-server-optional-rpms

# yum install yum-utils

1. **Create user with ssh(pem file)**