**Required Machines**

**Master : 8GB RAM, 50GB Storage, 4 Core, Network (NAT,HOST)**

**Node1 : 4GB RAM, 50GB Storage, 4 Core, Network (NAT,HOST)**

**Node2 : 4GB RAM, 50GB Storage, 4 Core, Network (NAT,HOST)**

**On All Machine**

# systemctl stop firewalld.service && systemctl disable firewalld.service

# vi /etc/selinux/config ------> SELINUX=disabled

# yum install epel-release.noarch

# yum install nfs-utils.x86\_64 –y

# systemctl start nfs-server.service && systemctl enable nfs-server.service

# useradd admin

# passwd admin ---------> set new password for **admin** user

**On Master Node**

# vi /etc/hosts

10.10.10.135 master

10.10.10.136 node1

10.10.10.137 node2

# rsync /etc/hosts root@node1:/etc/hosts

# rsync /etc/hosts root@node2:/etc/hosts

# chmod 777 /home/

# vi /etc/exports

/home/ 10.10.10.136(rw,sync,no\_root\_squash)

/home/ 10.10.10.137(rw,sync,no\_root\_squash)

# exportfs -avr

# ssh-keygen

# ssh-copy-id root@node1

# ssh-copy-id root@node2

# su – admin

**Now in admin@master user**

# ssh-keygen

# ssh-copy-id admin@node1

# ssh-copy-id admin@node2

**On All Machine**

# yum install munge munge-libs munge-devel –y

**On Master Node**

# /usr/sbin/create-munge-key –r

# scp /etc/munge/munge.key node1:/etc/munge/

# scp /etc/munge/munge.key node2:/etc/munge/

# systemctl start munge.service && systemctl enable munge.service

**On Node1 & Node2**

# chown munge:munge /etc/munge/munge.key

# systemctl start munge.service && systemctl enable munge.service

# mount -t nfs 10.10.10.135:/home/ /home/

**On Master Node**

# wget <https://download.schedmd.com/slurm/slurm-20.11.9.tar.bz2>

# yum install rpm-build

# rpmbuild -ta slurm-20.11.9.tar.bz2

If get failed install required dependences

# yum install python3 readline-devel perl-ExtUtils-MakeMaker pam-devel -y

# rpmbuild -ta slurm-20.11.9.tar.bz2

**On Node1 & Node2**

# yum install pam-devel python3 redline-devel perl-ExtUtils-MakeMaker mysql-devel -y

**On All Machine**

# export SLURMUSER=900

# groupadd -g $SLURMUSER slurm

# useradd -m -c "SLURM workload manager" -d /var/lib/slurm -u $SLURMUSER -g slurm -s /bin/bash slurm

**On Master Node**

# ll /root/rpmbuild/RPMS/x86\_64/

# mkdir /home/rpms

# cd /root/rpmbuild/RPMS/x86\_64/

# cp \* /home/rpms/

**On All Machine**

# cd /home/rpms/

# yum install localinstall \* -y

**On Node1 & Node2**

# rpm -e slurm-slurmctld-20.11.9-1.el7.x86\_64

# rpm -e slurm-slurmdbd-20.11.9-1.el7.x86\_64

We deleted these packages from node machines because we don’t need it

**On All Machine**

# mkdir /var/spool/slurm

# chown slurm:slurm /var/spool/slurm

# chmod 755 /var/spool/slurm/

# mkdir /var/log/slurm/

# chown -R slurm . /var/log/slurm

**On Master Node**

# touch /var/log/slurm/slurmctld.log

# chown slurm:slurm /var/log/slurm/slurmctld.log

# touch /var/log/slurm\_jobaact.log

# touch /var/log/slurm\_jobcomp.log

# chown slurm: /var/log/slurm\_jobaact.log

# chown slurm: /var/log/slurm\_jobcomp.log

# cp /etc/slurm/slurm.conf.example /etc/slurm/slurm.conf

# vi /etc/slurm/slurm.conf

On line 11. clustername=**hpcsa**

On line 12. ControlMachine=**master**

Comment line no. 92

**On Node1 & Node2**

# systemctl start slurmd.service && systemctl enable slurmd.service

# slurmd -C

**On Master Node**

vi /etc/slurm/slurm.conf

**line no 93.** PartitionName=**standard** Nodes=ALL Default=YES MaxTime=INFINITE State=UP

**line no 94**. NodeName=node1 CPUs=4 Boards=1 SocketsPerBoard=4 CoresPerSocket=1 Thread sPerCore=1 RealMemory=3770 state=UNKNOWN (slurmd -C outputline of node1)

**line no 95.** NodeName=node2 CPUs=4 Boards=1 SocketsPerBoard=4 CoresPerSocket=1 Thread sPerCore=1 RealMemory=3770 State=UNKNOWN (slurmd -C outputline of node1)

# scp /etc/slurm/slurm.conf node1:/etc/slurm/

# scp /etc/slurm/slurm.conf node2:/etc/slurm/

# systemctl start slurmctld.service && systemctl enable slurmctld.service

# sinfo