login as: root

root@192.168.44.132's password:

Last login: Sat Jul 15 18:07:33 2023

**[root@node1 ~]# vi /etc/hosts**

127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4

::1 localhost localhost.localdomain localhost6 localhost6.localdomain6

192.168.44.132 node1.hpcsa.in

192.168.44.133 node2.hpcsa.in

192.168.44.134 node3.hpcsa.in

192.168.44.135 client.hpcsa.in

**[root@node1 ~]# rsync /etc/hosts root@192.168.44.134:/etc/hosts**

The authenticity of host '192.168.44.134 (192.168.44.134)' can't be established.

ECDSA key fingerprint is SHA256:JbQFp/4SaYFpszIjBlpttyXEMGiNiL5rz5A+HcTkXQo.

ECDSA key fingerprint is MD5:9c:7c:9f:fd:38:b0:70:5c:20:ab:69:3b:07:05:3f:1c.

Are you sure you want to continue connecting (yes/no)? yes'

Warning: Permanently added '192.168.44.134' (ECDSA) to the list of known hosts.

root@192.168.44.134's password:

**[root@node1 ~]# rsync /etc/hosts root@192.168.44.135:/etc/hosts**

The authenticity of host '192.168.44.135 (192.168.44.135)' can't be established.

ECDSA key fingerprint is SHA256:JbQFp/4SaYFpszIjBlpttyXEMGiNiL5rz5A+HcTkXQo.

ECDSA key fingerprint is MD5:9c:7c:9f:fd:38:b0:70:5c:20:ab:69:3b:07:05:3f:1c.

Are you sure you want to continue connecting (yes/no)? yes

Warning: Permanently added '192.168.44.135' (ECDSA) to the list of known hosts.

root@192.168.44.135's password:

**[root@node1 ~]# systemctl stop firewalld**

**[root@node1 ~]# systemctl disable firewalld**

Removed symlink /etc/systemd/system/multi-user.target.wants/firewalld.service.

Removed symlink /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.

[root@node1 ~]# lsblk

NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT

sda 8:0 0 20G 0 disk

├─sda1 8:1 0 1G 0 part /boot

└─sda2 8:2 0 19G 0 part

├─centos-root 253:0 0 17G 0 lvm /

└─centos-swap 253:1 0 2G 0 lvm [SWAP]

sdb 8:16 0 20G 0 disk

sr0 11:0 1 973M 0 rom

**Creating Replication for Glusterfs.**

**[root@node1 ~]# fdisk /dev/sdb**

Welcome to fdisk (util-linux 2.23.2).

Changes will remain in memory only, until you decide to write them.

Be careful before using the write command.

Device does not contain a recognized partition table

Building a new DOS disklabel with disk identifier 0x02e83bd9.

Command (m for help): n

Partition type:

p primary (0 primary, 0 extended, 4 free)

e extended

Select (default p): p

Partition number (1-4, default 1):

First sector (2048-41943039, default 2048):

Using default value 2048

Last sector, +sectors or +size{K,M,G} (2048-41943039, default 41943039):

Using default value 41943039

Partition 1 of type Linux and of size 20 GiB is set

Command (m for help): w

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

[root@node1 ~]# lsblk

NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT

sda 8:0 0 20G 0 disk

├─sda1 8:1 0 1G 0 part /boot

└─sda2 8:2 0 19G 0 part

├─centos-root 253:0 0 17G 0 lvm /

└─centos-swap 253:1 0 2G 0 lvm [SWAP]

sdb 8:16 0 20G 0 disk

└─sdb1 8:17 0 20G 0 part

sr0 11:0 1 973M 0 rom

**[root@node1 ~]# mkfs.ext4 /dev/sdb1 or use mkfs.xfs /dev/sdb1**

mke2fs 1.42.9 (28-Dec-2013)

Filesystem label=

OS type: Linux

Block size=4096 (log=2)

Fragment size=4096 (log=2)

Stride=0 blocks, Stripe width=0 blocks

1310720 inodes, 5242624 blocks

262131 blocks (5.00%) reserved for the super user

First data block=0

Maximum filesystem blocks=2153775104

160 block groups

32768 blocks per group, 32768 fragments per group

8192 inodes per group

Superblock backups stored on blocks:

32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,

4096000

Allocating group tables: done

Writing inode tables: done

Creating journal (32768 blocks): done

Writing superblocks and filesystem accounting information: done

**[root@node1 ~]# mkdir /mnt/disk1**

**[root@node1 ~]# mount /dev/sdb1 /mnt/disk1/**

**[root@node1 ~]# lsblk**

NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT

sda 8:0 0 20G 0 disk

├─sda1 8:1 0 1G 0 part /boot

└─sda2 8:2 0 19G 0 part

├─centos-root 253:0 0 17G 0 lvm /

└─centos-swap 253:1 0 2G 0 lvm [SWAP]

sdb 8:16 0 20G 0 disk

└─sdb1 8:17 0 20G 0 part /mnt/disk1

sr0 11:0 1 973M 0 rom

[root@node1 ~]# yum install wget centos-release-gluster epel-release glusterfs-server -y

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

\* base: centos.mirror.net.in

\* extras: centos.mirror.net.in

\* updates: centos.mirror.net.in

No package glusterfs-server available.

Resolving Dependencies

--> Running transaction check

---> Package centos-release-gluster9.noarch 0:1.0-1.el7 will be installed

--> Processing Dependency: centos-release-storage-common for package: centos-release-gluster9-1.0-1.el7.noarch

---> Package epel-release.noarch 0:7-11 will be installed

---> Package wget.x86\_64 0:1.14-18.el7\_6.1 will be installed

--> Running transaction check

---> Package centos-release-storage-common.noarch 0:2-2.el7.centos will be installed

--> Finished Dependency Resolution

Dependencies Resolved

====================================================================================================================

Package Arch Version Repository Size

====================================================================================================================

Installing:

centos-release-gluster9 noarch 1.0-1.el7 extras 4.1 k

epel-release noarch 7-11 extras 15 k

wget x86\_64 1.14-18.el7\_6.1 base 547 k

Installing for dependencies:

centos-release-storage-common noarch 2-2.el7.centos extras 5.1 k

Transaction Summary

====================================================================================================================

Install 3 Packages (+1 Dependent package)

Total download size: 571 k

Installed size: 2.0 M

Downloading packages:

(1/4): centos-release-gluster9-1.0-1.el7.noarch.rpm | 4.1 kB 00:00:00

(2/4): epel-release-7-11.noarch.rpm | 15 kB 00:00:00

(3/4): wget-1.14-18.el7\_6.1.x86\_64.rpm | 547 kB 00:00:00

(4/4): centos-release-storage-common-2-2.el7.centos.noarch.rpm | 5.1 kB 00:00:00

--------------------------------------------------------------------------------------------------------------------

Total 793 kB/s | 571 kB 00:00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : centos-release-storage-common-2-2.el7.centos.noarch 1/4

Installing : centos-release-gluster9-1.0-1.el7.noarch 2/4

Installing : wget-1.14-18.el7\_6.1.x86\_64 3/4

Installing : epel-release-7-11.noarch 4/4

Verifying : centos-release-gluster9-1.0-1.el7.noarch 1/4

Verifying : centos-release-storage-common-2-2.el7.centos.noarch 2/4

Verifying : epel-release-7-11.noarch 3/4

Verifying : wget-1.14-18.el7\_6.1.x86\_64 4/4

Installed:

centos-release-gluster9.noarch 0:1.0-1.el7 epel-release.noarch 0:7-11 wget.x86\_64 0:1.14-18.el7\_6.1

Dependency Installed:

centos-release-storage-common.noarch 0:2-2.el7.centos

Complete!

**[root@node1 ~]# yum install glusterfs-server**

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

epel/x86\_64/metalink | 6.1 kB 00:00:00

\* base: centos.mirror.net.in

\* centos-gluster9: centos.mirror.net.in

\* epel: epel.excellmedia.net

\* extras: centos.mirror.net.in

\* updates: centos.mirror.net.in

centos-gluster9 | 3.0 kB 00:00:00

epel | 4.7 kB 00:00:00

(1/4): centos-gluster9/7/x86\_64/primary\_db | 89 kB 00:00:00

(2/4): epel/x86\_64/group\_gz | 99 kB 00:00:00

(3/4): epel/x86\_64/updateinfo | 1.0 MB 00:00:04

(4/4): epel/x86\_64/primary\_db | 7.0 MB 00:00:58

Resolving Dependencies

--> Running transaction check

---> Package glusterfs-server.x86\_64 0:9.6-1.el7 will be installed

--> Processing Dependency: glusterfs = 9.6-1.el7 for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: glusterfs-cli = 9.6-1.el7 for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: glusterfs-client-xlators = 9.6-1.el7 for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: glusterfs-fuse = 9.6-1.el7 for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: glusterfs-libs = 9.6-1.el7 for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi0 = 9.6-1.el7 for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfchangelog0 = 9.6-1.el7 for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_3.4.0)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_3.4.2)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_3.5.1)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_3.6.0)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_3.7.0)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_3.7.4)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_6.0)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_PRIVATE\_3.4.0)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_PRIVATE\_3.7.0)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_PRIVATE\_6.0)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0(GFAPI\_PRIVATE\_6.1)(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: rpcbind for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfapi.so.0()(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfchangelog.so.0()(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfrpc.so.0()(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libgfxdr.so.0()(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libglusterd.so.0()(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: libglusterfs.so.0()(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: liburcu-bp.so.6()(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Processing Dependency: liburcu-cds.so.6()(64bit) for package: glusterfs-server-9.6-1.el7.x86\_64

--> Running transaction check

---> Package glusterfs.x86\_64 0:9.6-1.el7 will be installed

---> Package glusterfs-cli.x86\_64 0:9.6-1.el7 will be installed

---> Package glusterfs-client-xlators.x86\_64 0:9.6-1.el7 will be installed

---> Package glusterfs-fuse.x86\_64 0:9.6-1.el7 will be installed

--> Processing Dependency: attr for package: glusterfs-fuse-9.6-1.el7.x86\_64

--> Processing Dependency: psmisc for package: glusterfs-fuse-9.6-1.el7.x86\_64

---> Package libgfapi0.x86\_64 0:9.6-1.el7 will be installed

---> Package libgfchangelog0.x86\_64 0:9.6-1.el7 will be installed

---> Package libgfrpc0.x86\_64 0:9.6-1.el7 will be installed

---> Package libgfxdr0.x86\_64 0:9.6-1.el7 will be installed

---> Package libglusterd0.x86\_64 0:9.6-1.el7 will be installed

---> Package libglusterfs0.x86\_64 0:9.6-1.el7 will be installed

---> Package rpcbind.x86\_64 0:0.2.0-49.el7 will be installed

--> Processing Dependency: libtirpc >= 0.2.4-0.7 for package: rpcbind-0.2.0-49.el7.x86\_64

--> Processing Dependency: libtirpc.so.1()(64bit) for package: rpcbind-0.2.0-49.el7.x86\_64

---> Package userspace-rcu.x86\_64 0:0.10.0-3.el7 will be installed

--> Running transaction check

---> Package attr.x86\_64 0:2.4.46-13.el7 will be installed

---> Package libtirpc.x86\_64 0:0.2.4-0.16.el7 will be installed

---> Package psmisc.x86\_64 0:22.20-17.el7 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

====================================================================================================================

Package Arch Version Repository Size

====================================================================================================================

Installing:

glusterfs-server x86\_64 9.6-1.el7 centos-gluster9 1.3 M

Installing for dependencies:

attr x86\_64 2.4.46-13.el7 base 66 k

glusterfs x86\_64 9.6-1.el7 centos-gluster9 647 k

glusterfs-cli x86\_64 9.6-1.el7 centos-gluster9 200 k

glusterfs-client-xlators x86\_64 9.6-1.el7 centos-gluster9 854 k

glusterfs-fuse x86\_64 9.6-1.el7 centos-gluster9 161 k

libgfapi0 x86\_64 9.6-1.el7 centos-gluster9 119 k

libgfchangelog0 x86\_64 9.6-1.el7 centos-gluster9 62 k

libgfrpc0 x86\_64 9.6-1.el7 centos-gluster9 85 k

libgfxdr0 x86\_64 9.6-1.el7 centos-gluster9 57 k

libglusterd0 x86\_64 9.6-1.el7 centos-gluster9 41 k

libglusterfs0 x86\_64 9.6-1.el7 centos-gluster9 340 k

libtirpc x86\_64 0.2.4-0.16.el7 base 89 k

psmisc x86\_64 22.20-17.el7 base 141 k

rpcbind x86\_64 0.2.0-49.el7 base 60 k

userspace-rcu x86\_64 0.10.0-3.el7 centos-gluster9 93 k

Transaction Summary

====================================================================================================================

Install 1 Package (+15 Dependent packages)

Total download size: 4.3 M

Installed size: 17 M

Is this ok [y/d/N]: y

Downloading packages:

(1/16): attr-2.4.46-13.el7.x86\_64.rpm | 66 kB 00:00:00

warning: /var/cache/yum/x86\_64/7/centos-gluster9/packages/glusterfs-9.6-1.el7.x86\_64.rpm: Header V4 RSA/SHA256 Signature, key ID e451e5b5: NOKEY

Public key for glusterfs-9.6-1.el7.x86\_64.rpm is not installed

(2/16): glusterfs-9.6-1.el7.x86\_64.rpm | 647 kB 00:00:00

(3/16): glusterfs-fuse-9.6-1.el7.x86\_64.rpm | 161 kB 00:00:00

(4/16): glusterfs-client-xlators-9.6-1.el7.x86\_64.rpm | 854 kB 00:00:00

(5/16): libgfapi0-9.6-1.el7.x86\_64.rpm | 119 kB 00:00:00

(6/16): libgfrpc0-9.6-1.el7.x86\_64.rpm | 85 kB 00:00:00

(7/16): libgfchangelog0-9.6-1.el7.x86\_64.rpm | 62 kB 00:00:00

(8/16): glusterfs-cli-9.6-1.el7.x86\_64.rpm | 200 kB 00:00:00

(9/16): libgfxdr0-9.6-1.el7.x86\_64.rpm | 57 kB 00:00:00

(10/16): libglusterd0-9.6-1.el7.x86\_64.rpm | 41 kB 00:00:00

(11/16): rpcbind-0.2.0-49.el7.x86\_64.rpm | 60 kB 00:00:00

(12/16): userspace-rcu-0.10.0-3.el7.x86\_64.rpm | 93 kB 00:00:00

(13/16): libtirpc-0.2.4-0.16.el7.x86\_64.rpm | 89 kB 00:00:00

(14/16): libglusterfs0-9.6-1.el7.x86\_64.rpm | 340 kB 00:00:00

(15/16): glusterfs-server-9.6-1.el7.x86\_64.rpm | 1.3 MB 00:00:00

(16/16): psmisc-22.20-17.el7.x86\_64.rpm | 141 kB 00:00:00

--------------------------------------------------------------------------------------------------------------------

Total 6.6 MB/s | 4.3 MB 00:00:00

Retrieving key from file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-SIG-Storage

Importing GPG key 0xE451E5B5:

Userid : "CentOS Storage SIG (http://wiki.centos.org/SpecialInterestGroup/Storage) <security@centos.org>"

Fingerprint: 7412 9c0b 173b 071a 3775 951a d4a2 e50b e451 e5b5

Package : centos-release-storage-common-2-2.el7.centos.noarch (@extras)

From : /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-SIG-Storage

Is this ok [y/N]: y

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : userspace-rcu-0.10.0-3.el7.x86\_64 1/16

Installing : libgfrpc0-9.6-1.el7.x86\_64 2/16

Installing : libgfxdr0-9.6-1.el7.x86\_64 3/16

Installing : libglusterfs0-9.6-1.el7.x86\_64 4/16

Installing : glusterfs-client-xlators-9.6-1.el7.x86\_64 5/16

Installing : glusterfs-9.6-1.el7.x86\_64 6/16

Installing : libglusterd0-9.6-1.el7.x86\_64 7/16

Installing : glusterfs-cli-9.6-1.el7.x86\_64 8/16

Installing : libgfapi0-9.6-1.el7.x86\_64 9/16

Installing : libgfchangelog0-9.6-1.el7.x86\_64 10/16

Installing : psmisc-22.20-17.el7.x86\_64 11/16

Installing : attr-2.4.46-13.el7.x86\_64 12/16

Installing : glusterfs-fuse-9.6-1.el7.x86\_64 13/16

Installing : libtirpc-0.2.4-0.16.el7.x86\_64 14/16

Installing : rpcbind-0.2.0-49.el7.x86\_64 15/16

Installing : glusterfs-server-9.6-1.el7.x86\_64 16/16

Verifying : libtirpc-0.2.4-0.16.el7.x86\_64 1/16

Verifying : libgfapi0-9.6-1.el7.x86\_64 2/16

Verifying : libgfchangelog0-9.6-1.el7.x86\_64 3/16

Verifying : glusterfs-9.6-1.el7.x86\_64 4/16

Verifying : libglusterfs0-9.6-1.el7.x86\_64 5/16

Verifying : userspace-rcu-0.10.0-3.el7.x86\_64 6/16

Verifying : glusterfs-server-9.6-1.el7.x86\_64 7/16

Verifying : libglusterd0-9.6-1.el7.x86\_64 8/16

Verifying : glusterfs-client-xlators-9.6-1.el7.x86\_64 9/16

Verifying : libgfrpc0-9.6-1.el7.x86\_64 10/16

Verifying : attr-2.4.46-13.el7.x86\_64 11/16

Verifying : glusterfs-fuse-9.6-1.el7.x86\_64 12/16

Verifying : psmisc-22.20-17.el7.x86\_64 13/16

Verifying : glusterfs-cli-9.6-1.el7.x86\_64 14/16

Verifying : libgfxdr0-9.6-1.el7.x86\_64 15/16

Verifying : rpcbind-0.2.0-49.el7.x86\_64 16/16

Installed:

glusterfs-server.x86\_64 0:9.6-1.el7

Dependency Installed:

attr.x86\_64 0:2.4.46-13.el7 glusterfs.x86\_64 0:9.6-1.el7 glusterfs-cli.x86\_64 0:9.6-1.el7

glusterfs-client-xlators.x86\_64 0:9.6-1.el7 glusterfs-fuse.x86\_64 0:9.6-1.el7 libgfapi0.x86\_64 0:9.6-1.el7

libgfchangelog0.x86\_64 0:9.6-1.el7 libgfrpc0.x86\_64 0:9.6-1.el7 libgfxdr0.x86\_64 0:9.6-1.el7

libglusterd0.x86\_64 0:9.6-1.el7 libglusterfs0.x86\_64 0:9.6-1.el7 libtirpc.x86\_64 0:0.2.4-0.16.el7

psmisc.x86\_64 0:22.20-17.el7 rpcbind.x86\_64 0:0.2.0-49.el7 userspace-rcu.x86\_64 0:0.10.0-3.el7

Complete!

**[root@node1 ~]# systemctl start glusterd && systemctl status glusterd**

● glusterd.service - GlusterFS, a clustered file-system server

Loaded: loaded (/usr/lib/systemd/system/glusterd.service; disabled; vendor preset: disabled)

Active: active (running) since Sat 2023-07-15 20:12:06 IST; 5ms ago

Docs: man:glusterd(8)

Process: 9739 ExecStart=/usr/sbin/glusterd -p /var/run/glusterd.pid --log-level $LOG\_LEVEL $GLUSTERD\_OPTIONS (code=exited, status=0/SUCCESS)

Main PID: 9740 (glusterd)

CGroup: /system.slice/glusterd.service

└─9740 /usr/sbin/glusterd -p /var/run/glusterd.pid --log-level INFO

Jul 15 20:12:06 node1.hpcsa.in systemd[1]: [/usr/lib/systemd/system/glusterd.service:4] Unknown lvalue 'Star...Unit'

Jul 15 20:12:06 node1.hpcsa.in systemd[1]: [/usr/lib/systemd/system/glusterd.service:5] Unknown lvalue 'Star...Unit'

Jul 15 20:12:06 node1.hpcsa.in systemd[1]: Starting GlusterFS, a clustered file-system server...

Jul 15 20:12:06 node1.hpcsa.in systemd[1]: Started GlusterFS, a clustered file-system server.

Hint: Some lines were ellipsized, use -l to show in full.

**[root@node1 ~]# systemctl enable glusterd**

Created symlink from /etc/systemd/system/multi-user.target.wants/glusterd.service to /usr/lib/systemd/system/glusterd.service.

**[root@node1 ~]# gluster peer probe node2.hpcsa.in**

peer probe: success

**[root@node1 ~]# gluster peer probe node3.hpcsa.in**

peer probe: success

**[root@node1 ~]# gluster peer status**

Number of Peers: 2

Hostname: node2.hpcsa.in

Uuid: 4c9f90ea-687a-4097-8390-9536e11634b9

State: Peer in Cluster (Connected)

Hostname: node3.hpcsa.in

Uuid: a3a39793-120d-4a93-80d4-49c2a7ecbe01

State: Peer in Cluster (Connected)

**[root@node1 ~]# gluster pool list**

UUID Hostname State

4c9f90ea-687a-4097-8390-9536e11634b9 node2.hpcsa.in Connected

a3a39793-120d-4a93-80d4-49c2a7ecbe01 node3.hpcsa.in Connected

b29f2cca-0915-4714-88f4-894ee9ba5a3e localhost Connected

**[root@node1 ~]# mkdir /mnt/disk1/diskvol (Run this command on All 3 nodes)**

[root@node1 ~]# lsblk

NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT

sda 8:0 0 20G 0 disk

├─sda1 8:1 0 1G 0 part /boot

└─sda2 8:2 0 19G 0 part

├─centos-root 253:0 0 17G 0 lvm /

└─centos-swap 253:1 0 2G 0 lvm [SWAP]

sdb 8:16 0 20G 0 disk

└─sdb1 8:17 0 20G 0 part /mnt/disk1

sr0 11:0 1 973M 0 rom

**[root@node1 ~]# gluster volume create gdisk2 replica 3 node1.hpcsa.in:/mnt/disk1/diskvol/gdisk2 node2.hpcsa.in:/mnt/disk1/diskvol/gdisk2 node3.hpcsa.in:/mnt/disk1/diskvol/gdisk2**

volume create: gdisk2: success: please start the volume to access data

**[root@node1 ~]# gluster volume start gdisk2**

volume start: gdisk2: success

**[root@node1 ~]# gluster volume info gdisk2**

Volume Name: gdisk2

Type: Replicate

Volume ID: aa8ece38-a3ec-47d8-88f7-1f923ef78771

Status: Started

Snapshot Count: 0

Number of Bricks: 1 x 3 = 3

Transport-type: tcp

Bricks:

Brick1: node1.hpcsa.in:/mnt/disk1/diskvol/gdisk2

Brick2: node2.hpcsa.in:/mnt/disk1/diskvol/gdisk2

Brick3: node3.hpcsa.in:/mnt/disk1/diskvol/gdisk2

Options Reconfigured:

cluster.granular-entry-heal: on

storage.fips-mode-rchecksum: on

transport.address-family: inet

nfs.disable: on

performance.client-io-threads: off

**(After this RUN CLIENT COMMANDS)**

**[root@node1 ~]# lsblk**

NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT

sda 8:0 0 20G 0 disk

├─sda1 8:1 0 1G 0 part /boot

└─sda2 8:2 0 19G 0 part

├─centos-root 253:0 0 17G 0 lvm /

└─centos-swap 253:1 0 2G 0 lvm [SWAP]

sdb 8:16 0 20G 0 disk

└─sdb1 8:17 0 20G 0 part /mnt/disk1

sr0 11:0 1 973M 0 rom

**[root@node1 ~]# df -TH**

Filesystem Type Size Used Avail Use% Mounted on

devtmpfs devtmpfs 498M 0 498M 0% /dev

tmpfs tmpfs 510M 0 510M 0% /dev/shm

tmpfs tmpfs 510M 8.0M 502M 2% /run

tmpfs tmpfs 510M 0 510M 0% /sys/fs/cgroup

/dev/mapper/centos-root xfs 19G 1.9G 17G 11% /

/dev/sda1 xfs 1.1G 144M 920M 14% /boot

tmpfs tmpfs 102M 0 102M 0% /run/user/0

/dev/sdb1 ext4 22G 4.6G 16G 24% /mnt/disk1

**[root@node1 ~]# cd /mnt/disk1/diskvol/gdisk2/**

**[root@node1 gdisk2]# ll -h**

total 7.9G

-rw-r--r--. 2 root root 7.9G Jul 15 20:51 file.txt

[root@node1 gdisk2]# cd

**2. CREATING DISTRIBUTED FILESYSTEM IN GLUSTERFS**

**[root@node1 ~]# mkdir /mnt/disk1/diskvol2**

**[root@node1 ~]# gluster volume create gdisk3 node1.hpcsa.in:/mnt/disk1/diskvol2/gdisk3 node2.hpcsa.in:/mnt/disk1/diskvol2/gdisk3 node3.hpcsa.in:/mnt/disk1/diskvol2/gdisk3**

volume create: gdisk3: success: please start the volume to access data

**[root@node1 ~]# gluster volume start gdisk3**

volume start: gdisk3: success

**[root@node1 ~]# gluster volume info gdisk3**

Volume Name: gdisk3

Type: Distribute

Volume ID: 48cf63c4-ee96-49af-a950-221607092479

Status: Started

Snapshot Count: 0

Number of Bricks: 3

Transport-type: tcp

Bricks:

Brick1: node1.hpcsa.in:/mnt/disk1/diskvol2/gdisk3

Brick2: node2.hpcsa.in:/mnt/disk1/diskvol2/gdisk3

Brick3: node3.hpcsa.in:/mnt/disk1/diskvol2/gdisk3

Options Reconfigured:

storage.fips-mode-rchecksum: on

transport.address-family: inet

nfs.disable: on

**(After this RUN CLIENT COMMANDS)**

**[root@node1 ~]# df -TH**

Filesystem Type Size Used Avail Use% Mounted on

devtmpfs devtmpfs 498M 0 498M 0% /dev

tmpfs tmpfs 510M 0 510M 0% /dev/shm

tmpfs tmpfs 510M 8.0M 502M 2% /run

tmpfs tmpfs 510M 0 510M 0% /sys/fs/cgroup

/dev/mapper/centos-root xfs 19G 1.9G 17G 11% /

/dev/sda1 xfs 1.1G 144M 920M 14% /boot

tmpfs tmpfs 102M 0 102M 0% /run/user/0

/dev/sdb1 ext4 22G 8.5G 12G 43% /mnt/disk1

**[root@node1 ~]# cd /mnt/disk1/diskvol2/gdisk3/**

**[root@node1 gdisk3]# ll -h**

total 2.0G

-rw-r--r--. 2 root root 9.9M Jul 15 22:02 dist.demo

-rw-r--r--. 2 root root 977M Jul 15 22:03 dist.lol

-rw-r--r--. 2 root root 977M Jul 15 22:00 dist.ruby

-rw-r--r--. 2 root root 9.9M Jul 15 22:02 dist.test

4 Files are showing in this node 1

**3.** Creating Disperse for GlusterFs

**[root@node1 ~]# gluster volume create gdisk4 disperse 3 redundancy 1 node1.hpcsa.in:/mnt/disk1/diskvol2/gdisk4 node2.hpcsa.in:/mnt/disk1/diskvol2/gdisk4 node3.hpcsa.in:/mnt/disk1/diskvol2/gdisk4**

volume create: gdisk4: success: please start the volume to access data

**[root@node1 ~]# gluster volume start gdisk4**

volume start: gdisk4: success

**[root@node1 ~]# gluster volume info gdisk4**

Volume Name: gdisk4

Type: Disperse

Volume ID: 3303318f-818f-401e-aaf6-532e5251728e

Status: Started

Snapshot Count: 0

Number of Bricks: 1 x (2 + 1) = 3

Transport-type: tcp

Bricks:

Brick1: node1.hpcsa.in:/mnt/disk1/diskvol2/gdisk4

Brick2: node2.hpcsa.in:/mnt/disk1/diskvol2/gdisk4

Brick3: node3.hpcsa.in:/mnt/disk1/diskvol2/gdisk4

Options Reconfigured:

storage.fips-mode-rchecksum: on

transport.address-family: inet

nfs.disable: on

**cd /mnt/disk1/diskvol2/gdisk4 (Check file in all 3 nodes in same path)**

**Note: In 2 nodes file will be stored in disperse mode and in remaining node parity will be stored.**