

PCS cluster installation and configuration

OS - rhel 9

1. subscription-manager repos
--enable=rhel-9-for-x86_64-highavailability-rpms (both node)
2. dnf install pcs pacemaker fence-agents-all (both node)
3. passwd hacluster (set on same passwd on same both)
4. systemctl start pcsd.service (both node)
5. systemctl enable pcsd.service (both node)
6. pcs host auth mailbox1.jalindia.com mailbox2.jalindia.co.in -u hacluster
7. pcs cluster setup my_cluster --start mailbox1.jalindia.com mailbox2.jalindia.co.in
8. pcs cluster enable --all
9. pcs cluster status
10. subscription-manager repos
--enable=rhel-9-for-x86_64-resilientstorage-rpms
11. dnf install lvm2-lockd gfs2-utils dlm
12. vi /etc/lvm/lvm.conf
change #use_lvmlockd = 0
use_lvmlockd = 1
then save and exit
13. pcs property set no-quorum-policy=freeze
14. pcs resource create dlm --group locking ocf:pacemaker:controld op monitor interval=30s on-fail=fence
15. pcs resource clone locking interleave=true
16. pcs resource create lvmlockd --group locking ocf:heartbeat:lvmlockd op monitor interval=30s on-fail=fence
17. pcs status --full
18. vgcreate --shared shared_vg1 /dev/mapper/3600asmkfd2324
19. lvmdevices --adddev /dev/ (vgname) --run on second node
20. vgchange --lockstart shared_vg1 --run on second node
21. lvcreate --activate sy +100%FREE -n shared_lv1 shared_vg1

22. `mkfs.gfs2 -j2 -p lock_dlm -t my_cluster:gfs2-demo1 /dev/shared_vg1/shared_lv1`

23. `pcs resource create sharedlv1 --group shared_vg1 ocf:heartbeat:LVM-activate lvname=shared_lv1 vgname=shared_vg1 activation_mode=shared vg_access_mode=lvmlockd`

24. `pcs resource clone shared_vg1 interleave=true`

25. `pcs constraint order start locking-clone then shared_vg1-clone`

26. `pcs constraint colocation add shared_vg1-clone with locking-clone`

27. `lvs` check lv on both node lv is visible on both node

28. `pcs resource create sharedfs1 --group shared_vg1 ocf:heartbeat:Filesystem device="/dev/shared_vg1/shared_lv1" directory="/opt" fstype="gfs2" options=noatime op monitor interval=10s on-fail=fence`

29. `pcs status --full`

30. Before configuring Zimbra, it is necessary to correct the path where the certifying unit (CA) is located:

`mkdir -p /opt/zimbra/java/jre/lib/security/`
`ln -s /opt/zimbra/common/etc/java/cacerts /opt/zimbra/java/jre/lib/security/cacerts`
`chown -R zimbra.zimbra /opt/zimbra/java`

31. `cd zcs` file then run `install.sh`

32. after installation on mailbox1 then stop cluster on mailbox2

33. `pcs cluster stop mailbox2.jalindia.co.in`

`mkdir -p /opt/zimbra/java/jre/lib/security/`
`ln -s /opt/zimbra/common/etc/java/cacerts /opt/zimbra/java/jre/lib/security/cacerts`
`chown -R zimbra.zimbra /opt/zimbra/java`

34. run Zimbra `install.sh` with `-s` (`./install.sh -s`)

35. after installation move `/opt/Zimbra` directory to another location

`# killall -9 -u zimbra`
`# mv /opt/zimbra /root/old-zimbra`

36. `pcs cluster start mailbox2.jalindia.co.in`

37. `vi zimbractl` and copy the content and paste it
<https://gist.github.com/skbly7/49d034c3db7aff635187e595c7a0eb5a>
(open this url and copy content)

38. `cp -v zimbractl /usr/lib/ocf/resource.d/heartbeat/`

39. `chmod 775 /usr/lib/ocf/resource.d/heartbeat/zimbractl`

40. copy same file on another mailbox server on same location
41. pcs resource create zimbra ocf:heartbeat:zimbractl op monitor interval=30s
42. pcs resource op remove zimbra monitor
43. pcs constraint colocation add zimbra virtual_ip INFINITY
44. pcs constraint order virtual_ip then Zimbra
45. pcs status

[root@mailbox1 admin]# pcs status

Cluster name: my_cluster

Cluster Summary:

- * Stack: corosync (Pacemaker is running)
- * Current DC: mailbox2.jalindia.co.in (version 2.1.8-3.el9-3980678f0) - MIXED-VERSION partition with quorum
- * Last updated: Thu Jul 31 12:12:47 2025 on mailbox1.jalindia.co.in
- * Last change: Thu Jul 17 12:45:26 2025 by hacluster via hacluster on mailbox1.jalindia.co.in
- * 2 nodes configured
- * 10 resource instances configured

Node List:

- * Node mailbox2.jalindia.co.in: standby
- * Online: [mailbox1.jalindia.co.in]

Full List of Resources:

- * Clone Set: locking-clone [locking]:
 - * Started: [mailbox1.jalindia.co.in]
 - * Stopped: [mailbox2.jalindia.co.in]
- * Clone Set: shared_vg1-clone [shared_vg1]:
 - * Started: [mailbox1.jalindia.co.in]
 - * Stopped: [mailbox2.jalindia.co.in]
- * zimbra (ocf:heartbeat:zimbractl): Started mailbox1.jalindia.co.in
- * virtual_ip (ocf:heartbeat:IPaddr2): Started mailbox1.jalindia.co.in

Daemon Status:

corosync: active/enabled
pacemaker: active/enabled

pcsd: active/enabled