





# Pacemaker/Corosync

# GFS2

:  
<http://www.unixarena.com/2016/01/rhel7-configuring-gfs2-on-pacemakercorosync-cluster.html>

GFS2

. GFS2  
가

. GFS2

Pacemaker / corosync  
(VFS )

GFS2

DLM (Dynamic Lock Manager)

. RHEL 7

. GFS2 Linux  
. Red Hat 가 가 ( )

- (Pacemaker) GFS2
- GFS2 lvm2
- LVM
- pacemaker DLM CLVMD
- 
- LVM GFS2
- 가 . (gfs2 / etc / fstab)
- 

- RHEL 7.x
- : Node1 & Node2.
- Fencing / STONITH : GFS2
- LUN "/dev/sda"
- :

```
[root@Node2-LAB ~]# pcs status
Cluster name: GFSCCLUS
Last updated: Thu Jan 21 18:00:25 2016
Last change: Wed Jan 20 16:12:24 2016 via cibadmin on Node1
Stack: corosync
Current DC: Node1 (1) - partition with quorum
Version: 1.1.10-29.el7-368c726
2 Nodes configured
5 Resources configured

Online: [ Node1 Node2 ]

Full list of resources:
```

```
xvmfence (stonith:fence_xvm): Started Node1
```

```
PCSD Status:  
Node1: Online  
Node2: Online
```

```
Daemon Status:  
corosync: active/enabled  
pacemaker: active/enabled  
pcsd: active/enabled  
[root@Node2-LAB ~]#
```

1. gfs2 lvm2 .

```
[root@Node2-LAB ~]# yum -y install gfs2-utils lvm2-cluster  
Loaded plugins: product-id, subscription-manager  
This system is not registered to Red Hat Subscription Management. You can  
use subscription-manager to register.  
Package gfs2-utils-3.1.6-13.el7.x86_64 already installed and latest version  
Package 7:lvm2-cluster-2.02.105-14.el7.x86_64 already installed and latest  
version  
Nothing to do  
[root@Node2-LAB ~]# ssh Node1 yum -y install gfs2-utils lvm2-cluster  
Loaded plugins: product-id, subscription-manager  
Package gfs2-utils-3.1.6-13.el7.x86_64 already installed and latest version  
Package 7:lvm2-cluster-2.02.105-14.el7.x86_64 already installed and latest  
version  
Nothing to do  
[root@Node2-LAB ~]#
```

## Clustered Locking LVM

1. ndoes LVM .

```
[root@Node2-LAB ~]# lvmconf --enable-cluster  
[root@Node2-LAB ~]# ssh Node1 lvmconf --enable-cluster  
[root@Node2-LAB ~]# cat /etc/lvm/lvm.conf |grep locking_type |grep -v "#"  
locking_type = 3  
[root@Node2-LAB ~]#
```

2. .

## DLM CLVMD

1.

2. DLM CLVMD

가

```
[root@Node1-LAB ~]# pcs resource create dlm ocf:pacemaker:controld op
monitor interval=30s on-fail=fence clone interleave=true ordered=true
[root@Node1-LAB ~]# pcs resource create clvmd ocf:heartbeat:clvm op monitor
interval=30s on-fail=fence clone interleave=true ordered=true
```

3.

```
[root@Node1-LAB ~]# pcs status
Cluster name: GFSCLUS
Last updated: Thu Jan 21 18:15:48 2016
Last change: Thu Jan 21 18:15:38 2016 via cibadmin on Node1
Stack: corosync
Current DC: Node2 (2) - partition with quorum
Version: 1.1.10-29.el7-368c726
2 Nodes configured
5 Resources configured
```

```
Online: [ Node1 Node2 ]
```

```
Full list of resources:
```

```
xvmfence      (stonith:fence_xvm):      Started Node1
Clone Set: dlm-clone [dlm]
  Started: [ Node1 Node2 ]
Clone Set: clvmd-clone [clvmd]
  Started: [ Node1 Node2 ]
```

```
PCSD Status:
Node1: Online
Node2: Online
```

```
Daemon Status:
corosync: active/enabled
pacemaker: active/enabled
pcsd: active/enabled
[root@Node1-LAB ~]#
```

가

1. ( )

```
[root@Node1-LAB ~]# pcs constraint order start dlm-clone then clvmd-clone
Adding dlm-clone clvmd-clone (kind: Mandatory) (Options: first-action=start
then-action=start)
[root@Node1-LAB ~]#
```

2.

```
[root@Node1-LAB ~]# pcs constraint colocation add clvmd-clone with dlm-clone
[root@Node1-LAB ~]#
```

3.

```
[root@Node1-LAB ~]# pcs constraint
Location Constraints:
Ordering Constraints:
start dlm-clone then start clvmd-clone
Colocation Constraints:
clvmd-clone with dlm-clone
[root@Node1-LAB ~]#
```

## LVM

1. LVM .

2. /dev/sda LUN .

3. .

```
[root@Node1-LAB ~]# vgcreate -Ay -cy gfsvg /dev/sda
Physical volume "/dev/sda" successfully created
Clustered volume group "gfsvg" successfully created
[root@Node1-LAB ~]#
[root@Node1-LAB kvmpool]# vgs
VG    #PV #LV #SN Attr   VSize   VFree
gfsvg  1  1  0 wz--nc 996.00m 96.00m
rhel  1  2  0 wz--n-  7.51g   0
[root@Node1-LAB kvmpool]#
```

4. .

```
[root@Node1-LAB ~]# lvcreate -L 900M -n gfsvoll1 gfsvg
Logical volume "gfsvoll1" created
[root@Node1-LAB ~]#
[root@Node1-LAB kvmpool]# lvs -o +devices gfsvg
LV      VG      Attr          LSize   Pool Origin Data%  Move Log Cpy%Sync
Convert Devices
gfsvoll1 gfsvg -wi-ao---- 900.00m
/dev/sda(0)
[root@Node1-LAB kvmpool]#
```

5.

```
[root@Node1-LAB ~]# mkfs.gfs2 -p lock_dlm -t GFSCCLUS:gfsvolfs -j 3
/dev/gfsvg/gfsvoll1
/dev/gfsvg/gfsvoll1 is a symbolic link to /dev/dm-2
This will destroy any data on /dev/dm-2
Are you sure you want to proceed? [y/n]y

Device:                /dev/gfsvg/gfsvoll1
Block size:            4096
Device size:           0.88 GB (230400 blocks)
Filesystem size:       0.88 GB (230400 blocks)
Journals:              2
Resource groups:       4
Locking protocol:      "lock_dlm"
Lock table:            "GFSCCLUS:gfsvolfs"
UUID:                  8dff8868-3815-d43c-dfa0-f2a9047d97a2
[root@Node1-LAB ~]#
```

```
GFSCCLUS -          gfsvolfs -          "-j 3"=Journal-          가
          + 1      ( 2          3)
```

## Pacemaker

- 1.
2. GFS2

```
[root@Node1-LAB ~]# pcs resource create gfsvolfs_res Filesystem
device="/dev/gfsvg/gfsvoll1" directory="/kvmpool" fstype="gfs2"
options="noatime,nodiratime" op monitor interval=10s on-fail=fence clone
interleave=true
[root@Node1-LAB ~]#
```

3.

```
[root@Node1-LAB ~]# df -h /kvmpool
Filesystem                Size      Used Avail Use% Mounted on
/dev/mapper/gfsvg-gfsvol1 900M    259M   642M  29% /kvmpool
[root@Node1-LAB ~]# ssh Node2 df -h /kvmpool
Filesystem                Size      Used Avail Use% Mounted on
/dev/mapper/gfsvg-gfsvol1 900M    259M   642M  29% /kvmpool
[root@Node1-LAB ~]#
```

4.

```
[root@Node1-LAB ~]# pcs constraint order start clvmd-clone then
gfsvolfs_res-clone
Adding clvmd-clone gfsvolfs_res-clone (kind: Mandatory) (Options: first-
action=start then-action=start)
[root@Node1-LAB ~]# pcs constraint order
Ordering Constraints:
  start clvmd-clone then start gfsvolfs_res-clone
  start dlm-clone then start clvmd-clone
[root@Node1-LAB ~]# pcs constraint colocation add gfsvolfs_res-clone with
clvmd-clone
[root@Node1-LAB ~]# pcs constraint colocation
Colocation Constraints:
  clvmd-clone with dlm-clone
  gfsvolfs_res-clone with clvmd-clone
[root@Node1-LAB ~]#
```

5.

```
[root@Node1-LAB ~]# cd /kvmpool/
[root@Node1-LAB kvmpool]# ls -lrt
total 0
[root@Node1-LAB kvmpool]# touch test1 test2 test3
[root@Node1-LAB kvmpool]# ls -lrt
total 12
-rw-r--r-- 1 root root 0 Jan 21 18:38 test1
-rw-r--r-- 1 root root 0 Jan 21 18:38 test3
-rw-r--r-- 1 root root 0 Jan 21 18:38 test2
[root@Node1-LAB kvmpool]# ssh Node2 ls -lrt /kvmpool/
total 12
-rw-r--r-- 1 root root 0 Jan 21 18:38 test1
-rw-r--r-- 1 root root 0 Jan 21 18:38 test3
-rw-r--r-- 1 root root 0 Jan 21 18:38 test2
[root@Node1-LAB kvmpool]#
```

No Quorum Policy :

GFS2 no-quorum-policy . freeze  
가 .

```
[root@Node1-LAB ~]# pcs property set no-quorum-policy=freeze
[root@Node1-LAB ~]#
```



OCFS2 (Oracle Cluster File System 2) Red Hat Enterprise Linux Red Hat

From: <https://atl.kr/dokuwiki/> - AllThatLinux!

Permanent link: [https://atl.kr/dokuwiki/doku.php/pacemaker\\_corosync\\_%ED%81%B4%EB%9F%AC%EC%8A%A4%ED%84%B0%EC%97%90%EC%84%9C\\_gfs2%EA%B5%AC%EC%84%B1](https://atl.kr/dokuwiki/doku.php/pacemaker_corosync_%ED%81%B4%EB%9F%AC%EC%8A%A4%ED%84%B0%EC%97%90%EC%84%9C_gfs2%EA%B5%AC%EC%84%B1)

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