

Setup cached thin-provisioned logical volume

```
-----  
lvcreate -l 100%free -n lv_bricks vg_rhgs /dev/vdb  
lvcreate --type cache-pool -l 97%FREE -n cpool vg_rhgs /dev/vdc  
lvconvert --type cache --cachepool vg_rhgs/cpool vg_rhgs/lv_bricks  
lvconvert --type thin-pool vg_rhgs/lv_bricks  
  
mkfs -t xfs -i size=512 -n size=8192 /dev/vg_rhgs/lv_bricks  
mount /rhgs/bricks  
gluster vol create rep01 replica 2 n1:/rhgs/bricks/rep01 n2:/rhgs/bricks/rep01  
force  
gluster vol start rep01
```

Use writeback LVM cache mode

```
-----  
lvcreate -l 100%free -n lv_bricks vg_rhgs /dev/vdb  
lvcreate --type cache-pool -l 97%FREE -n cpool vg_rhgs /dev/vdc  
lvconvert --type cache --cachemode writeback --cachepool vg_rhgs/cpool  
vg_rhgs/lv_bricks  
lvconvert --type thin-pool vg_rhgs/lv_bricks  
  
mkfs -t xfs -i size=512 -n size=8192 /dev/vg_rhgs/lv_bricks  
mount /rhgs/bricks  
gluster vol create rep01 replica 2 n1:/rhgs/bricks/rep01 n2:/rhgs/bricks/rep01  
force  
gluster vol start rep01
```

More lvmcache commands...

Create the initial cache pool:

```
vgextend vg_rhgs /dev/vdc  
lvcreate --type cache-pool -l 97%FREE -n cpool vg_rhgs /dev/vdc
```

```
n=1; for i in {a..x}; do vgextend rhgs_vg$i /dev/nvme0n1p$n; lvcreate --type cache-  
pool -l 97%FREE -n cpool$i rhgs_vg$i /dev/nvme0n1p$n; ((n+=1)); done
```

Attach the cache pool to the existing thin LV in writethrough mode:

```
lvconvert --type cache --cachemode writethrough --cachepool vg_rhgs/cpool  
vg_rhgs/pool_rhgs_tdata
```

Remove cache pool from LV -- writes data back from the cache as necessary:

```
lvconvert --splitcache vg_rhgs/pool_rhgs_tdata
```

Re-attach cache pool in writeback mode:

```
lvconvert --type cache --cachemode writeback --cachepool vg_rhgs/cpool  
vg_rhgs/pool_rhgs_tdata
```

```
for i in {a..x}; do lvconvert --yes --type cache --cachemode writeback --cachepool  
rhgs_vg${i}/cpool${i} rhgs_vg${i}/rhgs_thinpool${i}_tdata; done
```

```
lvs -a -o
name,vg_name,size,pool_lv,devices,cachemode,cache_policy,cache_settings,chunksize
vg_rhgs
```

=====

Split off all cache volumes (will cause cache flushing; could be significant time for writeback).

```
for i in {a..x}; do lvconvert --splitcache rhgs_vg${i}/rhgs_thinpool${i}_tdata &
done
```

=====

2 NVMe drives to cache 24 HDDs

```
pvremove /dev/nvme0n1p{1..24} --force --force
pvremove /dev/nvme1n1p{1..24} --force --force
```

Create 24 PVs across 2 NVMe drives

```
parted --script /dev/nvme0n1 \
mklabel gpt \
mkpart p01 1024kB 66GB \
mkpart p02 66GB 132GB \
mkpart p03 132GB 198GB \
mkpart p04 198GB 264GB \
mkpart p05 264GB 330GB \
mkpart p06 330GB 396GB \
mkpart p07 396GB 462GB \
mkpart p08 462GB 528GB \
mkpart p09 528GB 594GB \
mkpart p10 594GB 660GB \
mkpart p11 660GB 726GB \
mkpart p12 726GB 792GB \
set 1 lvm on \
set 2 lvm on \
set 3 lvm on \
set 4 lvm on \
set 5 lvm on \
set 6 lvm on \
set 7 lvm on \
set 8 lvm on \
set 9 lvm on \
set 10 lvm on \
set 11 lvm on \
set 12 lvm on \
print
```

```
parted --script /dev/nvme1n1 \
```

```

mklabel gpt \
mkpart p01 1024kB 66GB \
mkpart p02 66GB 132GB \
mkpart p03 132GB 198GB \
mkpart p04 198GB 264GB \
mkpart p05 264GB 330GB \
mkpart p06 330GB 396GB \
mkpart p07 396GB 462GB \
mkpart p08 462GB 528GB \
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mkpart p10 594GB 660GB \
mkpart p11 660GB 726GB \
mkpart p12 726GB 792GB \
set 1 lvm on \
set 2 lvm on \
set 3 lvm on \
set 4 lvm on \
set 5 lvm on \
set 6 lvm on \
set 7 lvm on \
set 8 lvm on \
set 9 lvm on \
set 10 lvm on \
set 11 lvm on \
set 12 lvm on \
print

for i in 0 1; do for j in {1..12}; do pvcreate /dev/nvme${i}nlp${j}; done; done

n=1; for i in {a..l}; do vgextend rhgs_vg$i /dev/nvme0nlp$n; lvcreate --type cache-
pool -l 97%FREE -n cpool$i rhgs_vg$i /dev/nvme0nlp$n; ((n+=1)); done

n=1; for i in {m..x}; do vgextend rhgs_vg$i /dev/nvme1nlp$n; lvcreate --type cache-
pool -l 97%FREE -n cpool$i rhgs_vg$i /dev/nvme1nlp$n; ((n+=1)); done

for i in {a..x}; do lvconvert --yes --type cache --cachemode writeback --cachepool
rhgs_vg${i}/cpool${i} rhgs_vg${i}/rhgs_thinpool${i}_tdata; done

lvs -a -o
name,vg_name,size,pool_lv,devices,cachemode,cache_policy,cache_settings,chunksize

watch -n1 -cd "lvs -a -o
devices,cachetotalblocks,cacheusedblocks,cachedirtyblocks,cachereadhits,cachereadmi
sses,cachewritehits,cachewritemisses | egrep 'Devices|cdata'"

```