Subject: OpenVZ and Linux md software raid sync slow
Posted by ccto on Sun, 17 Jan 2010 02:17:58 GMT
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Hello all,

We have multiple OpenVZ server running with x86 and x64 OS.

We notice that when a server crashed, or somehow the Linux md raid requires re-sync.

RAID 10, 4 x 500GB HDD to form a 1TB storage.

Under a OpenVZ kernel (e.g. 2.6.18-164.2.1.el5.028stab066.10ent), it takes a long time (e.g. 30 hours) to sync (speed is around 8000KB/sec)

```
# cat /proc/mdstat
Personalities : [raid10]
md0 : active raid10 sde1[3] sdd1[2] sdc1[1] sdb1[0]
      976767872 blocks 64K chunks 2 near-copies [4/4] [UUUU]
      [==>..................]  resync = 12.3% (120280320/976767872) finish=1717.1min
speed=8311K/sec

unused devices: <none>

# mdadm --detail /dev/md0
/dev/md0:
        Version : 0.90
  Creation Time : Wed Jun 24 00:45:22 2009
     Raid Level : raid10
     Array Size : 976767872 (931.52 GiB 1000.21 GB)
  Used Dev Size : 488383936 (465.76 GiB 500.11 GB)
   Raid Devices : 4
  Total Devices : 4
Preferred Minor : 0
    Persistence : Superblock is persistent

    Update Time : Sun Jan 17 10:18:40 2010
          State : clean, resyncing
 Active Devices : 4
Working Devices : 4
 Failed Devices : 0
  Spare Devices : 0

         Layout : near=2
     Chunk Size : 64K

 Rebuild Status : 12% complete
```

UUID : 30f591b0:103cd46e:8c413dd3:256197d0
Events : 0.8914

Number	Major	Minor	RaidDevice	State	
0	8	17	0	active sync	/dev/sdb1
1	8	33	1	active sync	/dev/sdc1
2	8	49	2	active sync	/dev/sdd1
3	8	65	3	active sync	/dev/sde1

If we reboot the machine into a Linux standard kernel to restart the resync process , it takes around 2 hours (re-sync speed is around 100MB/sec).

It happens a few times already on both x86 or x64 Linux and OpenVZ kernel.

Also, the CT under the OpenVZ container is very idle, those CT's LAVERAGE is nearly 0.

For production machines, we need to let the CT online, so online resync, and wait for a long time.

Is there any parameter(s) that we can adjust? or like host I/O etc. Please help

Thank you very much for your kind attention.
Regards
George