

Raid 5 performance

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/performance/2004-02/0010.html>

From: Todd Lewis (todd_at_qdsdirect.com)

Date: 02/08/04

Date: Sat, 07 Feb 2004 21:57:50 -0600

To: freebsd-performance@freebsd.org

I am using FreeBSD 4.9, with a 3ware RAID 5
1 gig memory 2.8g p4

Three questions.

1. FreeBSD has a 16k block size. The RAID card is set at 64k Block size(its sweet spot). My logic tells me that increasing the block size to 64k would increase disk read and write access. But, everything I read suggest going above 64k is dangerous. Are there any recommendations on performance a stability concerns when increasing the block size to 64k when using a RAID controller.
2. The `vfs.hirunningspace` variable defaults to 1meg. From what I've read this looks like a buffer. I'm guessing that its set to 1meg because most drives have 1~2 megs of memory. So following that logic and with safety in mind. For drives with 4 megs cache, I would set `vfs.hirunningspace` to 2 megs. 8megs of cache 4 megs to `vfs.hirunningspace`. So, my 64 megs raid control would have a `vfs.hirunningspace` 32.
3. Any other stellar performance info would be appreciated.

`netstat -m`

mbuf usage:

GEN list: 4/480 (in use/in pool)
CPU #0 list: 443/656 (in use/in pool)
Total: 447/1136 (in use/in pool)
Maximum number allowed on each CPU list: 512
Maximum possible: 51200
Allocated mbuf types:
358 mbufs allocated to data
89 mbufs allocated to packet headers
2% of mbuf map consumed

mbuf cluster usage:

GEN list: 12/564 (in use/in pool)
CPU #0 list: 263/304 (in use/in pool)

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Total: 275/868 (in use/in pool)
Maximum number allowed on each CPU list: 128
Maximum possible: 25600
3% of cluster map consumed
2020 KBytes of wired memory reserved (32% in use)
0 requests for memory denied
0 requests for memory delayed
0 calls to protocol drain routines

```
dd if=/dev/da0s1f of=/dev/null bs=1m count=100
```

code:

```
100+0 records in  
100+0 records out  
104857600 bytes transferred in 6.331798 secs (16560478 bytes/sec)
```

freebsd-performance@freebsd.org mailing list

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