

## DragonFlyBSD - Bug #2577

### virtio-blk iops performance is cpu limited on high end devices

08/01/2013 01:59 PM - gjs278

<b>Status:</b>	New	<b>Start date:</b>	08/01/2013
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	vsrinivas	<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>			

#### Description

Qemu 1.5.2 on Gentoo AMD64 kernel 3.10.4 host with an i7 980x processor at 4.2ghz

```
qemu-system-x86_64 -machine accel=kvm -cpu host -drive file=/dev/fioa3,if=virtio,cache=none,aio=native -balloon virtio -smp 6 -m 6144M
```

/dev/fioa3 is a 160gb slc fusion-io card

DragonFlyBSD 3.4.2-RELEASE is the guest OS

```
# /tmp/rr1 /dev/vbd0
```

```
Device /dev/vbd0 bufsize 512 limit 10.800GB nprocs 32
```

```
randrand 1.001s 24293 loops = 41.202uS/loop
```

```
randrand 1.002s 24384 loops = 41.072uS/loop
```

```
randrand 1.001s 24633 loops = 40.640uS/loop
```

```
# /tmp/rr1 /dev/vbd0 4096
```

```
Device /dev/vbd0 bufsize 4096 limit 10.800GB nprocs 32
```

```
randrand 1.001s 24333 loops = 41.119uS/loop
```

```
randrand 1.002s 24389 loops = 41.052uS/loop
```

```
randrand 1.001s 24367 loops = 41.093uS/loop
```

```
# /tmp/rr1 /dev/vbd0 16384
```

```
Device /dev/vbd0 bufsize 16384 limit 10.800GB nprocs 32
```

```
randrand 1.001s 21006 loops = 41.619uS/loop
```

```
randrand 1.002s 21167 loops = 41.348uS/loop
```

```
randrand 1.001s 20520 loops = 48.850uS/loop
```

cpu usage on the host nears 100% while /tmp/rr1 is running. at nprocs 32, the device should be capable of at least 100k iops. the same 25k limit is seen using an ssd array as well.

#### History

**#1 - 08/01/2013 02:07 PM - vsrinivas**

- Assignee set to vsrinivas

**#2 - 08/01/2013 02:28 PM - gjs278**

```
# sysctl machdep.cpu_idle_hlt=0
```

Raises cpu usage on the host OS to 100% and results in better /tmp/rr1 numbers of around 30k loops at the 512 and 4096 block size, compared to the previous results of 25k max under machdep.cpu\_idle\_hlt = 2