

# FreeBSD 6.2-STABLE crash under moderate disk activity

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*Source:* <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/stable/2007-08/msg00016.html>

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FreeBSD 6.2-RELEASE and 6.2-STABLE both repeatedly crash with moderate disk activity. The problem occurs with two different disk drives, controller documented as supported. When disk is empty, everything works; filling disk with data makes crash inevitable.

Here is my backtrace

Unread portion of the kernel message buffer:

ad6: WARNING - SETFEATURES SET TRANSFER MODE taskqueue timeout - completing request directly

ad6: TIMEOUT - WRITE\_DMA retrying (1 retry left) LBA=18829695

Fatal trap 12: page fault while in kernel mode

fault virtual address = 0x28

fault code = supervisor read, page not present

instruction pointer = 0x20:0xc0695b74

stack pointer = 0x28:0xd568ec28

frame pointer = 0x28:0xd568ec30

code segment = base 0x0, limit 0xffff, type 0x1b

= DPL 0, pres 1, def32 1, gran 1

processor eflags = interrupt enabled, resume, IOPL = 0

current process = 18 (thread taskq)

trap number = 12

panic: page fault

Uptime: 38m41s

Dumping 511 MB (2 chunks)

chunk 0: 1MB (160 pages) ... ok

chunk 1: 511MB (130800 pages) 495 479 463 447 431 415 399 383 367 351 335 319 303 287 271 255 239 223 207 191 175 159 143 127 111 95 79 63 47 31 15

#0 doadump () at pcpu.h:165

165 pcpu.h: No such file or directory.

in pcpu.h

(kgdb) bt

#0 doadump () at pcpu.h:165

#1 0xc06827ea in boot (howto=260) at /usr/src/sys/kern/kern\_shutdown.c:409

#2 0xc0682a80 in panic (fmt=0xc08f6895 "%s") at /usr/src/sys/kern/kern\_shutdown.c:565

#3 0xc08985f4 in trap\_fatal (frame=0xd568ebe8, eva=40) at /usr/src/sys/i386/i386/trap.c:837

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#4 0xc089835b in trap_pfault (frame=0xd568ebe8, usermode=0, eva=40)
at /usr/src/sys/i386/i386/trap.c:745
#5 0xc0897f99 in trap (frame=
{tf_fs = -1064435704, tf_es = -714604504, tf_ds = -1064239064, tf_edi = -1004877952, tf_esi = 0, tf_ebp =
-714544080, tf_esp = -714544108, tf_ebx = -1004877952, tf_edx = 2, tf_ecx = -1019514112, tf_eax = 0,
tf_trapno = 12, tf_err = 0, tf_eip = -1066837132, tf_cs = 32, tf_eflags = 590406, tf_esp = -1004877952, tf_ss
= 0}) at /usr/src/sys/i386/i386/trap.c:435
#6 0xc08856ca in calltrap () at /usr/src/sys/i386/i386/exception.s:139
#7 0xc0695b74 in devclass_sysctl_init (dc=0x0) at /usr/src/sys/kern/subr_bus.c:215
#8 0xc0695cf0 in device_sysctl_init (dev=0xc41ac780) at /usr/src/sys/kern/subr_bus.c:280
#9 0xc0697b7a in device_attach (dev=0xc41ac780) at /usr/src/sys/kern/subr_bus.c:2375
#10 0xc0697b64 in device_probe_and_attach (dev=0xc41ac780)
at /usr/src/sys/kern/subr_bus.c:2346
#11 0xc069844a in bus_generic_attach (dev=0x0) at /usr/src/sys/kern/subr_bus.c:2883
#12 0xc04c6814 in ata_identify (dev=0xc3404080) at /usr/src/sys/dev/ata/ata-all.c:718
#13 0xc04c7462 in ata_sata_phy_event (context=0xc3cc6de0, dummy=1)
at /usr/src/sys/dev/ata/ata-chipset.c:273
#14 0xc06a1e9b in taskqueue_run (queue=0xc3301d00) at /usr/src/sys/kern/subr_taskqueue.c:257
#15 0xc06a22d6 in taskqueue_thread_loop (arg=0x0) at /usr/src/sys/kern/subr_taskqueue.c:376
#16 0xc066c9d4 in fork_exit (callout=0xc06a2268 <taskqueue_thread_loop>, arg=0xc09f8ba8,
frame=0xd568ed38) at /usr/src/sys/kern/kern_fork.c:830
#17 0xc088572c in fork_trampoline () at /usr/src/sys/i386/i386/exception.s:208
```

dmesg.boot:

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FreeBSD 6.2-STABLE #0: Thu Jul 26 10:27:14 MSD 2007

root@xxxxxxxxxxxxxx:/usr/obj/usr/src/sys/DBILL

ACPI APIC Table: <GBT AWRDACPI>

Timecounter "i8254" frequency 1193182 Hz quality 0

CPU: Intel(R) Pentium(R) 4 CPU 2.40GHz (2411.60-MHz 686-class CPU)

Origin = "GenuineIntel" Id = 0xf24 Stepping = 4

Features=0x3febfbf<FPU,VME,DE,PSE,TSC,MSR,PAE,MCE,CX8,APIC,SEP,MTRR,PGE,MCA,CMOV,PAT,PSE

HTT,TM>

real memory = 536805376 (511 MB)

avail memory = 515887104 (491 MB)

ioapic0 <Version 2.0> irqs 0-23 on motherboard

kbd1 at kbdmux0

ath\_hal: 0.9.20.3 (AR5210, AR5211, AR5212, RF5111, RF5112, RF2413, RF5413)

acpi0: <GBT AWRDACPI> on motherboard

acpi0: Power Button (fixed)

cpu0: <ACPI CPU> on acpi0

acpi\_button0: <Power Button> on acpi0

acpi\_button1: <Sleep Button> on acpi0

pcib0: <ACPI Host-PCI bridge> port 0xcf8-0xcff,0x4000-0x40bf on acpi0

pci0: <ACPI PCI bus> on pcib0

agp0: <Intel 82845G host to AGP bridge> mem 0xd0000000-0xd7ffffff at device 0.0 on pci0

pcib1: <PCI-PCI bridge> at device 1.0 on pci0

## FreeBSD 6.2-STABLE crash under moderate disk activity

pci1: <PCI bus> on pcib1  
pci1: <display, VGA> at device 0.0 (no driver attached)  
uhci0: <Intel 82801DB (ICH4) USB controller USB-A> port 0xb800-0xb81f irq 16 at device 29.0 on pci0  
uhci0: [GIANT-LOCKED]  
usb0: <Intel 82801DB (ICH4) USB controller USB-A> on uhci0  
usb0: USB revision 1.0  
uhub0: Intel UHCI root hub, class 9/0, rev 1.00/1.00, addr 1  
uhub0: 2 ports with 2 removable, self powered  
uhci1: <Intel 82801DB (ICH4) USB controller USB-B> port 0xb000-0xb01f irq 19 at device 29.1 on pci0  
uhci1: [GIANT-LOCKED]  
usb1: <Intel 82801DB (ICH4) USB controller USB-B> on uhci1  
usb1: USB revision 1.0  
uhub1: Intel UHCI root hub, class 9/0, rev 1.00/1.00, addr 1  
uhub1: 2 ports with 2 removable, self powered  
uhci2: <Intel 82801DB (ICH4) USB controller USB-C> port 0xb400-0xb41f irq 18 at device 29.2 on pci0  
uhci2: [GIANT-LOCKED]  
usb2: <Intel 82801DB (ICH4) USB controller USB-C> on uhci2  
usb2: USB revision 1.0  
uhub2: Intel UHCI root hub, class 9/0, rev 1.00/1.00, addr 1  
uhub2: 2 ports with 2 removable, self powered  
ehci0: <Intel 82801DB/L/M (ICH4) USB 2.0 controller> mem 0xe4000000-0xe40003ff irq 23 at device 29.7 on pci0  
ehci0: [GIANT-LOCKED]  
usb3: EHCI version 1.0  
usb3: companion controllers, 2 ports each: usb0 usb1 usb2  
usb3: <Intel 82801DB/L/M (ICH4) USB 2.0 controller> on ehci0  
usb3: USB revision 2.0  
uhub3: Intel EHCI root hub, class 9/0, rev 2.00/1.00, addr 1  
uhub3: 6 ports with 6 removable, self powered  
pcib2: <ACPI PCI-PCI bridge> at device 30.0 on pci0  
pci2: <ACPI PCI bus> on pcib2  
rl0: <RealTek 8139 10/100BaseTX> port 0x9000-0x90ff mem 0xe3000000-0xe30000ff irq 22 at device 2.0 on pci2  
miibus0: <MII bus> on rl0  
rlphy0: <RealTek internal media interface> on miibus0  
rlphy0: 10baseT, 10baseT-FDX, 100baseTX, 100baseTX-FDX, auto  
rl0: Ethernet address: 00:50:22:82:db:6c  
atapci0: <SiI 3512 SATA150 controller> port 0x9400-0x9407,0x9800-0x9803,0x9c00-0x9c07,0xa000-0xa003,0xa400-0xa40f mem 0xe3001000-0xe30011ff irq 18 at device 4.0 on pci2  
ata2: <ATA channel 0> on atapci0  
ata3: <ATA channel 1> on atapci0  
isab0: <PCI-ISA bridge> at device 31.0 on pci0  
isa0: <ISA bus> on isab0  
atapci1: <Intel ICH4 UDMA100 controller> port 0x1f0-0x1f7,0x3f6,0x170-0x177,0x376,0xf000-0xf00f at device 31.1 on pci0  
ata0: <ATA channel 0> on atapci1  
ata1: <ATA channel 1> on atapci1  
pci0: <serial bus, SMBus> at device 31.3 (no driver attached)  
pci0: <multimedia, audio> at device 31.5 (no driver attached)  
fdc0: <floppy drive controller> port 0x3f0-0x3f5,0x3f7 irq 6 drq 2 on acpi0

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fdc0: [FAST]  
sio0: <16550A-compatible COM port> port 0x3f8-0x3ff irq 4 flags 0x10 on acpi0  
sio0: type 16550A  
sio1: <16550A-compatible COM port> port 0x2f8-0x2ff irq 3 on acpi0  
sio1: type 16550A  
ppc0: <Standard parallel printer port> port 0x378-0x37f irq 7 on acpi0  
ppc0: Generic chipset (NIBBLE-only) in COMPATIBLE mode  
ppbus0: <Parallel port bus> on ppc0  
plip0: <PLIP network interface> on ppbus0  
lpt0: <Printer> on ppbus0  
lpt0: Interrupt-driven port  
ppi0: <Parallel I/O> on ppbus0  
atkbd0: <Keyboard controller (i8042)> port 0x60,0x64 irq 1 on acpi0  
atkbd0: <AT Keyboard> irq 1 on atkbd0  
kbd0 at atkbd0  
atkbd0: [GIANT-LOCKED]  
pmtimer0 on isa0  
orm0: <ISA Option ROM> at iomem 0xcc000-0xd07ff on isa0  
sc0: <System console> at flags 0x100 on isa0  
sc0: VGA <16 virtual consoles, flags=0x300>  
vga0: <Generic ISA VGA> at port 0x3c0-0x3df iomem 0xa0000-0xbffff on isa0  
Timecounter "TSC" frequency 2411602732 Hz quality 800  
Timecounters tick every 1.000 msec  
ad0: 38166MB <MAXTOR STM3402111A 3.AAJ> at ata0-master UDMA100  
ad6: 476940MB <Seagate ST3500630NS 3.AEG> at ata3-master SATA150

Alex.

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freebsd-stable@xxxxxxxxxxx mailing list

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