

## repeatable crash with 5.4-RELEASE and PAE

*Source:* <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/stable/2005-06/0054.html>

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We're having crash under load problems using freebsd 5.4-release (i386) and PAE kernel.

Machine:

Dual Xeon 3.6 Dell Poweredge 2850

8 gigs of ram

16 gigs of swap

amr raid

The machine will reliably crash under load within an hour or so. "under load" involves large network transfers being processed by cpu and memory intensive processes.

i cant get a crash dump (when it starts dumping, it will stop part way thru displaying memory increments.)

I have gotten it to spit out a trace from KDB, which i've copied out below.

(i had to do it from a screenshot/by hand- i checked it twice, but if things dont make sence, there may be a typo)

kernel config included below the trace.

We've tried turning off hyperthreading. The problem persists.

We've tried turning off PAE (which brings us from 8 gigs to 3). The problem goes away.

This is obviously not the optimal solution.

```
---
kdb_enter(c05a1e33) at kdb_enter+0x2b
panic(c05a0a51,fffffffe,c05a0a3b,cb65ed80,fffffffe) at panic+0x127
lockmgr(cbadb7e4,6,cbadb738,0,f1b93a0c) at lockmgr+0x421
vop_stdunlock(f1b93a3c,f1b93a18,c038320f,f1b93a3c,f1b93a59) at
vop_stdunlock+0x1f
vop_defaultop(f1b93a3c,f1b93a58,c038379c,f1b93a3c,1000) at
vop_defaultop+0x13
spec_vnoperate(f1b93a3c,1000,7f010000,cb4e100,f1b93aa4) at
spec_vnoperate+0x13
spec_write(f1b93a84,f1b93ad0,c04fce99,f1b93a84,cb65ed80) at spec_write
+0x64
spec_vnoperate(f1b93a84) at spec_vnoperate+0x13
```

## freebsd-stable: repeatable crash with 5.4-RELEASE and PAE

```
vnode_pager_generic_putpages(cbadb738,f1b93be0,1000,0,f1b93b60) at
vnode_pager_generic_putpages+0x221
vop_stdputpages
(f1b93b18,f1b93b18,f1b93b04,c038320f,f1b93b18,f1b93b44) at
vop_stdputpages+0x1a
vop_defaultop(f1b93b18,f1b93b44,c04fcc36,f1b93b18,1000) at
vop_defaultop+0x13
spec_vnoperate(f1b93b18) at spec_vnoperate+0x13
vnode_pager_putpages(cbb53ad4,f1b93be0,1,0,f1b93b60) at
vnode_pager_putpages+0xba
vm_pageout_flush(f1b93be0,1,0,cbd7a600,f1b93bb8) at vm_pageout_flush
+0xcb
vm_pageout_clean(c4254e4c) at vm_pageout_clean+0x2a1
vm_pageout_scan(0) at vm_pageout_scan+0x706
vm_pageout(0,f1b93d38) at vm_pageout+0x312
fork_exit(c04f5e1c,0,f1b93d38) at fork_exit+0x75
fork_trampoline() at fork_trampoline+0x8
--- trap 0x1, eip=0, esp = 0xf1b93d6c, ebp = 0 ---
kernel config:
include GENERIC
ident          PAE-GENERIC
options        KDB_TRACE
options        KDB
options        DDB
makeoptions    DEBUG=-g
options        SMP
options        COMPAT_LINUX
device         acpi
makeoptions    NO_MODULES=yes
nodevice       ahb
nodevice       amd
nodevice       sym
nodevice       trm
nodevice       adv
nodevice       adw
nodevice       aha
nodevice       aic
nodevice       bt
nodevice       ncv
node
```