
Subject: kernel PAE and ENT very slow

Posted by [goeldi](#) on Sun, 11 May 2008 22:21:32 GMT

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I have this problem with a node: it runs fine with kernel 2.6.18-ovz028stab053.5-smp but can see only 4GB out of 8. Therefore I installed 2.6.18-ovz028stab053.5-enterprise which can see all 8GB but is very slow after initializing udev. The system is so slow it is not usable (about 10 minutes until the login prompt). This is a Core2Quad with an Intel DG33BU mainboard (not defect, but I had to add pci=nommcconf for a successful boot.

I tried it with kernels 2.6.18-53.1.13.el5.028stab053.10ent and 2.6.18-53.1.13.el5.028stab053.10PAE with same effect.

Is this a known effect?

Is there any boot option to solve this issue?

Here are the software versions, output of dmesg and dmidecode:

```
# uname -a
```

```
Linux hostname 2.6.18-ovz028stab053.5-smp #1 SMP Wed Feb 13 14:20:54 MSK 2008 i686 i686  
i386 GNU/Linux
```

```
# rpm -q centos-release
```

```
centos-release-5-1.0.el5.centos.1
```

```
vzctl-3.0.22-1
```

```
# dmesg
```

```
Linux version 2.6.18-ovz028stab053.5-smp (root@centos-32-build) (gcc version 3.4.4 20050721  
(Red Hat 3.4.4-2)) #1 SMP Wed Feb 13 14:20:54 MSK 2  
008
```

```
BIOS-provided physical RAM map:
```

```
BIOS-e820: 0000000000000000 - 000000000009fc00 (usable)  
BIOS-e820: 000000000009fc00 - 00000000000a0000 (reserved)  
BIOS-e820: 00000000000e0000 - 0000000000100000 (reserved)  
BIOS-e820: 0000000000100000 - 00000000ce222000 (usable)  
BIOS-e820: 00000000ce222000 - 00000000ce282000 (ACPI NVS)  
BIOS-e820: 00000000ce282000 - 00000000cf2d1000 (usable)  
BIOS-e820: 00000000cf2d1000 - 00000000cf2d3000 (reserved)  
BIOS-e820: 00000000cf2d3000 - 00000000cf391000 (usable)  
BIOS-e820: 00000000cf391000 - 00000000cf39c000 (ACPI NVS)  
BIOS-e820: 00000000cf39c000 - 00000000cf39d000 (ACPI data)  
BIOS-e820: 00000000cf39d000 - 00000000cf3ea000 (ACPI NVS)  
BIOS-e820: 00000000cf3ea000 - 00000000cf3f3000 (ACPI data)  
BIOS-e820: 00000000cf3f3000 - 00000000cf3f4000 (usable)  
BIOS-e820: 00000000cf3f4000 - 00000000cf3ff000 (ACPI data)  
BIOS-e820: 00000000cf3ff000 - 00000000cf400000 (usable)  
BIOS-e820: 00000000cf400000 - 00000000d0000000 (reserved)
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BIOS-e820: 00000000f0000000 - 00000000f8000000 (reserved)
BIOS-e820: 00000000ffff00000 - 0000000100000000 (reserved)
BIOS-e820: 0000000100000000 - 000000022c000000 (usable)
Warning only 4GB will be used.
Use a PAE enabled kernel.
3200MB HIGHMEM available.
896MB LOWMEM available.
found SMP MP-table at 000fe200
On node 0 totalpages: 1048576
  DMA zone: 4096 pages, LIFO batch:0
  Normal zone: 225280 pages, LIFO batch:31
  HighMem zone: 819200 pages, LIFO batch:31
DMI 2.4 present.
ACPI: RSDP (v000 INTEL          ) @ 0x000fe020
ACPI: RSDT (v001 INTEL DG33BU 0x0000011f 0x01000013) @ 0xcf3fd038
ACPI: FADT (v001 INTEL DG33BU 0x0000011f MSFT 0x01000013) @ 0xcf3fc000
ACPI: MADT (v001 INTEL DG33BU 0x0000011f MSFT 0x01000013) @ 0xcf3f7000
ACPI: WDDT (v001 INTEL DG33BU 0x0000011f MSFT 0x01000013) @ 0xcf3f6000
ACPI: MCFG (v001 INTEL DG33BU 0x0000011f MSFT 0x01000013) @ 0xcf3f5000
ACPI: ASF! (v032 INTEL DG33BU 0x0000011f MSFT 0x01000013) @ 0xcf3f4000
ACPI: DMAR (v001 INTEL DG33BU 0x0000011f MSFT 0x01000013) @ 0xcf3f2000
ACPI: SSDT (v001 INTEL  CpuPm 0x0000011f MSFT 0x01000013) @ 0xcf3f1000
ACPI: SSDT (v001 INTEL  Cpu0Ist 0x0000011f MSFT 0x01000013) @ 0xcf3f0000
ACPI: SSDT (v001 INTEL  Cpu1Ist 0x0000011f MSFT 0x01000013) @ 0xcf3ef000
ACPI: SSDT (v001 INTEL  Cpu2Ist 0x0000011f MSFT 0x01000013) @ 0xcf3ee000
ACPI: SSDT (v001 INTEL  Cpu3Ist 0x0000011f MSFT 0x01000013) @ 0xcf3ed000
ACPI: SSDT (v001 INTEL  Cpu0Cst 0x0000011f MSFT 0x01000013) @ 0xcf3ec000
ACPI: SSDT (v001 INTEL  Cpu1Cst 0x0000011f MSFT 0x01000013) @ 0xcf3eb000
ACPI: SSDT (v001 INTEL  Cpu2Cst 0x0000011f MSFT 0x01000013) @ 0xcf3ea000
ACPI: SSDT (v001 INTEL  Cpu3Cst 0x0000011f MSFT 0x01000013) @ 0xcf39c000
ACPI: DSDT (v001 INTEL DG33BU 0x0000011f MSFT 0x01000013) @ 0x00000000
ACPI: PM-Timer IO Port: 0x408
ACPI: Local APIC address 0xfee00000
ACPI: LAPIC (acpi_id[0x01] lapic_id[0x00] enabled)
Processor #0 6:15 APIC version 20
ACPI: LAPIC (acpi_id[0x03] lapic_id[0x02] enabled)
Processor #2 6:15 APIC version 20
ACPI: LAPIC (acpi_id[0x02] lapic_id[0x01] enabled)
Processor #1 6:15 APIC version 20
ACPI: LAPIC (acpi_id[0x04] lapic_id[0x03] enabled)
Processor #3 6:15 APIC version 20
ACPI: LAPIC_NMI (acpi_id[0x01] dfl dfl lint[0x1])
ACPI: LAPIC_NMI (acpi_id[0x02] dfl dfl lint[0x1])
ACPI: IOAPIC (id[0x02] address[0xfec00000] gsi_base[0])
IOAPIC[0]: apic_id 2, version 32, address 0xfec00000, GSI 0-23
ACPI: INT_SRC_OVR (bus 0 bus_irq 0 global_irq 2 dfl dfl)
ACPI: INT_SRC_OVR (bus 0 bus_irq 9 global_irq 9 high level)
ACPI: IRQ0 used by override.

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ACPI: IRQ2 used by override.
ACPI: IRQ9 used by override.
Enabling APIC mode: Flat. Using 1 I/O APICs
Using ACPI (MADT) for SMP configuration information
Allocating PCI resources starting at d2000000 (gap: d0000000:20000000)
Detected 2400.194 MHz processor.
Built 1 zonelists. Total pages: 1048576
Kernel command line: ro root=/dev/md2 pci=nommconf
mapped APIC to ffffd000 (fee00000)
mapped IOAPIC to ffffc000 (fec00000)
Enabling fast FPU save and restore... done.
Enabling unmasked SIMD FPU exception support... done.
Initializing CPU#0
CPU 0 irqstacks, hard=c0636000 soft=c062e000
PID hash table entries: 4096 (order: 12, 16384 bytes)
Console: colour VGA+ 80x25
Dentry cache hash table entries: 131072 (order: 7, 524288 bytes)
Inode-cache hash table entries: 65536 (order: 6, 262144 bytes)
Memory: 3347636k/4194304k available (3814k kernel code, 45876k reserved, 1142k data, 300k
init, 2477252k highmem)
Checking if this processor honours the WP bit even in supervisor mode... Ok.
Calibrating delay using timer specific routine.. 5186.02 BogoMIPS (lpj=2593010)
Mount-cache hash table entries: 512
CPU: After generic identify, caps: bfebfbff 20000000 00000000 00000000 0000e3bd 00000000
00000001
CPU: After vendor identify, caps: bfebfbff 20000000 00000000 00000000 0000e3bd 00000000
00000001
monitor/mwait feature present.
using mwait in idle threads.
CPU: L1 I cache: 32K, L1 D cache: 32K
CPU: L2 cache: 4096K
CPU: Physical Processor ID: 0
CPU: Processor Core ID: 0
CPU: After all inits, caps: bfebfbff 20000000 00000000 00000940 0000e3bd 00000000 00000001
Intel machine check architecture supported.
Intel machine check reporting enabled on CPU#0.
Compat vDSO mapped to ffffe000.
Checking 'hlt' instruction... OK.
Freeing SMP alternatives: 20k freed
ACPI: Core revision 20060707
Page beancounter hash is 524288 entries.
CPU0: Intel(R) Core(TM)2 Quad CPU Q6600 @ 2.40GHz stepping 0b
Booting processor 1/1 eip 2000
CPU 1 irqstacks, hard=c0637000 soft=c062f000
Initializing CPU#1
Calibrating delay using timer specific routine.. 4799.47 BogoMIPS (lpj=2399738)
CPU: After generic identify, caps: bfebfbff 20000000 00000000 00000000 0000e3bd 00000000
00000001

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CPU: After vendor identify, caps: bfebfbff 20000000 00000000 00000000 0000e3bd 00000000
00000001
monitor/mwait feature present.
CPU: L1 I cache: 32K, L1 D cache: 32K
CPU: L2 cache: 4096K
CPU: Physical Processor ID: 0
CPU: Processor Core ID: 1
CPU: After all inits, caps: bfebfbff 20000000 00000000 00000940 0000e3bd 00000000 00000001
Intel machine check architecture supported.
Intel machine check reporting enabled on CPU#1.
CPU1: Intel(R) Core(TM)2 Quad CPU   Q6600  @ 2.40GHz stepping 0b
Booting processor 2/2 eip 2000
CPU 2 irqstacks, hard=c0638000 soft=c0630000
Initializing CPU#2
Calibrating delay using timer specific routine.. 4799.53 BogoMIPS (lpj=2399765)
CPU: After generic identify, caps: bfebfbff 20000000 00000000 00000000 0000e3bd 00000000
00000001
CPU: After vendor identify, caps: bfebfbff 20000000 00000000 00000000 0000e3bd 00000000
00000001
monitor/mwait feature present.
CPU: L1 I cache: 32K, L1 D cache: 32K
CPU: L2 cache: 4096K
CPU: Physical Processor ID: 0
CPU: Processor Core ID: 2
CPU: After all inits, caps: bfebfbff 20000000 00000000 00000940 0000e3bd 00000000 00000001
Intel machine check architecture supported.
Intel machine check reporting enabled on CPU#2.
CPU2: Intel(R) Core(TM)2 Quad CPU   Q6600  @ 2.40GHz stepping 0b
Booting processor 3/3 eip 2000
CPU 3 irqstacks, hard=c0639000 soft=c0631000
Initializing CPU#3
Calibrating delay using timer specific routine.. 4799.51 BogoMIPS (lpj=2399755)
CPU: After generic identify, caps: bfebfbff 20000000 00000000 00000000 0000e3bd 00000000
00000001
CPU: After vendor identify, caps: bfebfbff 20000000 00000000 00000000 0000e3bd 00000000
00000001
monitor/mwait feature present.
CPU: L1 I cache: 32K, L1 D cache: 32K
CPU: L2 cache: 4096K
CPU: Physical Processor ID: 0
CPU: Processor Core ID: 3
CPU: After all inits, caps: bfebfbff 20000000 00000000 00000940 0000e3bd 00000000 00000001
Intel machine check architecture supported.
Intel machine check reporting enabled on CPU#3.
CPU3: Intel(R) Core(TM)2 Quad CPU   Q6600  @ 2.40GHz stepping 0b
Total of 4 processors activated (19584.53 BogoMIPS).
ENABLING IO-APIC IRQs
..TIMER: vector=0x31 apic1=0 pin1=2 apic2=-1 pin2=-1

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checking TSC synchronization across 4 CPUs: passed.
Brought up 4 CPUs
migration_cost=16,3407
checking if image is initramfs... it is
Freeing initrd memory: 2191k freed
NET: Registered protocol family 16
ACPI: bus type pci registered
PCI: Using configuration type 1
Setting up standard PCI resources
ACPI: Interpreter enabled
ACPI: Using IOAPIC for interrupt routing
ACPI: PCI Root Bridge [PCI0] (0000:00)
PCI: Probing PCI hardware (bus 00)
ACPI: Assume root bridge [_SB_.PCI0] bus is 0
Boot video device is 0000:00:02.0
PCI: Ignoring BAR0-3 of IDE controller 0000:00:1f.2
PCI: Transparent bridge - 0000:00:1e.0
ACPI: PCI Interrupt Routing Table [_SB_.PCI0._PRT]
ACPI: PCI Interrupt Routing Table [_SB_.PCI0.P32_.PRT]
ACPI: PCI Interrupt Link [LNKA] (IRQs 3 4 5 7 9 10 *11 12)
ACPI: PCI Interrupt Link [LNKB] (IRQs 3 4 5 7 9 10 *11 12)
ACPI: PCI Interrupt Link [LNKC] (IRQs 3 4 5 7 *9 10 11 12)
ACPI: PCI Interrupt Link [LNKD] (IRQs 3 4 5 7 9 *10 11 12)
ACPI: PCI Interrupt Link [LNKE] (IRQs 3 4 5 7 9 10 11 12) *0, disabled.
ACPI: PCI Interrupt Link [LNKF] (IRQs 3 4 5 7 9 *10 11 12)
ACPI: PCI Interrupt Link [LNKG] (IRQs 3 4 5 7 9 10 11 12) *0, disabled.
ACPI: PCI Interrupt Link [LNKH] (IRQs 3 4 5 7 *9 10 11 12)
ACPI: PCI Interrupt Routing Table [_SB_.PCI0.PEX0._PRT]
ACPI: PCI Interrupt Routing Table [_SB_.PCI0.PEX1._PRT]
ACPI: PCI Interrupt Routing Table [_SB_.PCI0.PEX2._PRT]
ACPI: PCI Interrupt Routing Table [_SB_.PCI0.PEX3._PRT]
ACPI: PCI Interrupt Routing Table [_SB_.PCI0.PEX4._PRT]
SCSI subsystem initialized
PCI: Using ACPI for IRQ routing
PCI: If a device doesn't work, try "pci=routeirq". If it helps, post a report
PCI: Ignore bogus resource 6 [0:0] of 0000:00:02.0
PCI: Bridge: 0000:00:1c.0
IO window: disabled.
MEM window: e0400000-e04fffff
PREFETCH window: disabled.
PCI: Bridge: 0000:00:1c.1
IO window: 2000-2fff
MEM window: e0100000-e01fffff
PREFETCH window: disabled.
PCI: Bridge: 0000:00:1c.2
IO window: disabled.
MEM window: e0500000-e05fffff
PREFETCH window: disabled.

PCI: Bridge: 0000:00:1c.3
IO window: disabled.
MEM window: e0600000-e06fffff
PREFETCH window: disabled.
PCI: Bridge: 0000:00:1c.4
IO window: disabled.
MEM window: e0700000-e07fffff
PREFETCH window: disabled.
PCI: Bridge: 0000:00:1e.0
IO window: 1000-1fff
MEM window: e0000000-e00fffff
PREFETCH window: e0800000-e08fffff
PCI: Enabling device 0000:00:1c.0 (0000 -> 0002)
ACPI: PCI Interrupt 0000:00:1c.0[A] -> GSI 17 (level, low) -> IRQ 16
PCI: Setting latency timer of device 0000:00:1c.0 to 64
ACPI: PCI Interrupt 0000:00:1c.1[B] -> GSI 20 (level, low) -> IRQ 17
PCI: Setting latency timer of device 0000:00:1c.1 to 64
PCI: Enabling device 0000:00:1c.2 (0000 -> 0002)
ACPI: PCI Interrupt 0000:00:1c.2[C] -> GSI 18 (level, low) -> IRQ 18
PCI: Setting latency timer of device 0000:00:1c.2 to 64
PCI: Enabling device 0000:00:1c.3 (0000 -> 0002)
ACPI: PCI Interrupt 0000:00:1c.3[D] -> GSI 19 (level, low) -> IRQ 19
PCI: Setting latency timer of device 0000:00:1c.3 to 64
PCI: Enabling device 0000:00:1c.4 (0000 -> 0002)
ACPI: PCI Interrupt 0000:00:1c.4[A] -> GSI 17 (level, low) -> IRQ 16
PCI: Setting latency timer of device 0000:00:1c.4 to 64
PCI: Setting latency timer of device 0000:00:1e.0 to 64
NET: Registered protocol family 2
IP route cache hash table entries: 32768 (order: 5, 131072 bytes)
TCP established hash table entries: 131072 (order: 8, 1048576 bytes)
TCP bind hash table entries: 65536 (order: 7, 524288 bytes)
TCP: Hash tables configured (established 131072 bind 65536)
TCP reno registered
highmem bounce pool size: 64 pages
VFS: Disk quotas dquot_6.5.1
Dquot-cache hash table entries: 1024 (order 0, 4096 bytes)
Initializing Cryptographic API
io scheduler noop registered
io scheduler anticipatory registered
io scheduler deadline registered
io scheduler cfq registered (default)
pci_hotplug: PCI Hot Plug PCI Core version: 0.5
Real Time Clock Driver v1.12ac
Serial: 8250/16550 driver \$Revision: 1.90 \$ 4 ports, IRQ sharing disabled
serial8250: ttyS0 at I/O 0x3f8 (irq = 4) is a 16550A
RAMDISK driver initialized: 16 RAM disks of 16384K size 1024 blocksize
Compaq SMART2 Driver (v 2.6.0)
HP CISS Driver (v 3.6.10)

Uniform Multi-Platform E-IDE driver Revision: 7.00alpha2
ide: Assuming 33MHz system bus speed for PIO modes; override with idebus=xx
Probing IDE interface ide0...
hda: WDC WD5000AAKS-00YGA0, ATA DISK drive
Probing IDE interface ide1...
hdc: WDC WD5000AAKS-00YGA0, ATA DISK drive
ide0 at 0x1f0-0x1f7,0x3f6 on irq 14
ide1 at 0x170-0x177,0x376 on irq 15
hda: max request size: 512KiB
hda: 976773168 sectors (500107 MB) w/16384KiB Cache, CHS=60801/255/63
hda: cache flushes supported
hda: hda1 hda2 hda3 hda4 < hda5 hda6 hda7 hda8 >
hdc: max request size: 512KiB
hdc: 976773168 sectors (500107 MB) w/16384KiB Cache, CHS=60801/255/63
hdc: cache flushes supported
hdc: hdc1 hdc2 hdc3 hdc4 < hdc5 hdc6 hdc7 hdc8 >
Loading iSCSI transport class v1.1-646.<6>Adaptec aacraid driver (1.1-5[2409]-mh2)
QLogic Fibre Channel HBA Driver
Emulex LightPulse Fibre Channel SCSI driver 8.1.9
Copyright(c) 2004-2006 Emulex. All rights reserved.
megaraid cmm: 2.20.2.7 (Release Date: Sun Jul 16 00:01:03 EST 2006)
megaraid: 2.20.4.9 (Release Date: Sun Jul 16 12:27:22 EST 2006)
megasas: 00.00.03.01 Sun May 14 22:49:52 PDT 2006
GDT-HA: Storage RAID Controller Driver. Version: 3.05
GDT-HA: Found 0 PCI Storage RAID Controllers
3ware Storage Controller device driver for Linux v1.26.02.001.
3ware 9000 Storage Controller device driver for Linux v2.26.02.007.
libata version 2.00 loaded.
serio: i8042 AUX port at 0x60,0x64 irq 12
serio: i8042 KBD port at 0x60,0x64 irq 1
mice: PS/2 mouse device common for all mice
md: linear personality registered for level -1
md: raid0 personality registered for level 0
md: raid1 personality registered for level 1
md: raid10 personality registered for level 10
raid6: int32x1 917 MB/s
raid6: int32x2 1042 MB/s
raid6: int32x4 726 MB/s
input: AT Translated Set 2 keyboard as /class/input/input0
raid6: int32x8 687 MB/s
raid6: mmxx1 2796 MB/s
raid6: mmxx2 3394 MB/s
raid6: sse1x1 2164 MB/s
raid6: sse1x2 2722 MB/s
raid6: sse2x1 3800 MB/s
raid6: sse2x2 4273 MB/s
raid6: using algorithm sse2x2 (4273 MB/s)
md: raid6 personality registered for level 6

md: raid5 personality registered for level 5
md: raid4 personality registered for level 4
raid5: automatically using best checksumming function: pIII_sse
pIII_sse : 8964.000 MB/sec
raid5: using function: pIII_sse (8964.000 MB/sec)
md: multipath personality registered for level -4
md: md driver 0.90.3 MAX_MD_DEVS=256, MD_SB_DISKS=27
md: bitmap version 4.39
device-mapper: ioctl: 4.7.0-ioclt (2006-06-24) initialised: dm-devel@redhat.com
device-mapper: multipath: version 1.0.4 loaded
device-mapper: multipath round-robin: version 1.0.0 loaded
device-mapper: multipath emc: version 0.0.3 loaded
TCP bic registered
NET: Registered protocol family 1
NET: Registered protocol family 10
IPv6 over IPv4 tunneling driver
Starting balanced_irq
Using IPI Shortcut mode
Freeing unused kernel memory: 300k freed
Time: tsc clocksource has been installed.
usbcore: registered new driver usbfs
usbcore: registered new driver hub
USB Universal Host Controller Interface driver v3.0
ACPI: PCI Interrupt 0000:00:1a.0[A] -> GSI 18 (level, low) -> IRQ 18
PCI: Setting latency timer of device 0000:00:1a.0 to 64
uhci_hcd 0000:00:1a.0: UHCI Host Controller
uhci_hcd 0000:00:1a.0: new USB bus registered, assigned bus number 1
uhci_hcd 0000:00:1a.0: irq 18, io base 0x000030c0
usb usb1: configuration #1 chosen from 1 choice
hub 1-0:1.0: USB hub found
hub 1-0:1.0: 2 ports detected
input: ImExPS/2 Generic Explorer Mouse as /class/input/input1
ACPI: PCI Interrupt 0000:00:1a.1[B] -> GSI 21 (level, low) -> IRQ 20
PCI: Setting latency timer of device 0000:00:1a.1 to 64
uhci_hcd 0000:00:1a.1: UHCI Host Controller
uhci_hcd 0000:00:1a.1: new USB bus registered, assigned bus number 2
uhci_hcd 0000:00:1a.1: irq 20, io base 0x000030a0
usb usb2: configuration #1 chosen from 1 choice
hub 2-0:1.0: USB hub found
hub 2-0:1.0: 2 ports detected
ACPI: PCI Interrupt 0000:00:1a.2[C] -> GSI 17 (level, low) -> IRQ 16
PCI: Setting latency timer of device 0000:00:1a.2 to 64
uhci_hcd 0000:00:1a.2: UHCI Host Controller
uhci_hcd 0000:00:1a.2: new USB bus registered, assigned bus number 3
uhci_hcd 0000:00:1a.2: irq 16, io base 0x00003080
usb usb3: configuration #1 chosen from 1 choice
hub 3-0:1.0: USB hub found
hub 3-0:1.0: 2 ports detected

ACPI: PCI Interrupt 0000:00:1d.0[A] -> GSI 23 (level, low) -> IRQ 21
PCI: Setting latency timer of device 0000:00:1d.0 to 64
uhci_hcd 0000:00:1d.0: UHCI Host Controller
uhci_hcd 0000:00:1d.0: new USB bus registered, assigned bus number 4
uhci_hcd 0000:00:1d.0: irq 21, io base 0x00003060
usb usb4: configuration #1 chosen from 1 choice
hub 4-0:1.0: USB hub found
hub 4-0:1.0: 2 ports detected
ACPI: PCI Interrupt 0000:00:1d.1[B] -> GSI 19 (level, low) -> IRQ 19
PCI: Setting latency timer of device 0000:00:1d.1 to 64
uhci_hcd 0000:00:1d.1: UHCI Host Controller
uhci_hcd 0000:00:1d.1: new USB bus registered, assigned bus number 5
uhci_hcd 0000:00:1d.1: irq 19, io base 0x00003040
usb usb5: configuration #1 chosen from 1 choice
hub 5-0:1.0: USB hub found
hub 5-0:1.0: 2 ports detected
ACPI: PCI Interrupt 0000:00:1d.2[C] -> GSI 18 (level, low) -> IRQ 18
PCI: Setting latency timer of device 0000:00:1d.2 to 64
uhci_hcd 0000:00:1d.2: UHCI Host Controller
uhci_hcd 0000:00:1d.2: new USB bus registered, assigned bus number 6
uhci_hcd 0000:00:1d.2: irq 18, io base 0x00003020
usb usb6: configuration #1 chosen from 1 choice
hub 6-0:1.0: USB hub found
hub 6-0:1.0: 2 ports detected
ohci_hcd: 2005 April 22 USB 1.1 'Open' Host Controller (OHCI) Driver (PCI)
ACPI: PCI Interrupt 0000:00:1a.7[C] -> GSI 17 (level, low) -> IRQ 16
PCI: Setting latency timer of device 0000:00:1a.7 to 64
ehci_hcd 0000:00:1a.7: EHCI Host Controller
ehci_hcd 0000:00:1a.7: new USB bus registered, assigned bus number 7
ehci_hcd 0000:00:1a.7: debug port 1
PCI: cache line size of 32 is not supported by device 0000:00:1a.7
ehci_hcd 0000:00:1a.7: irq 16, io mem 0xe0380400
ehci_hcd 0000:00:1a.7: USB 2.0 started, EHCI 1.00, driver 10 Dec 2004
usb usb7: configuration #1 chosen from 1 choice
hub 7-0:1.0: USB hub found
hub 7-0:1.0: 6 ports detected
ACPI: PCI Interrupt 0000:00:1d.7[A] -> GSI 23 (level, low) -> IRQ 21
PCI: Setting latency timer of device 0000:00:1d.7 to 64
ehci_hcd 0000:00:1d.7: EHCI Host Controller
ehci_hcd 0000:00:1d.7: new USB bus registered, assigned bus number 8
ehci_hcd 0000:00:1d.7: debug port 1
PCI: cache line size of 32 is not supported by device 0000:00:1d.7
ehci_hcd 0000:00:1d.7: irq 21, io mem 0xe0380000
ehci_hcd 0000:00:1d.7: USB 2.0 started, EHCI 1.00, driver 10 Dec 2004
usb usb8: configuration #1 chosen from 1 choice
hub 8-0:1.0: USB hub found
hub 8-0:1.0: 6 ports detected
Initializing USB Mass Storage driver...

usbcore: registered new driver usb-storage
USB Mass Storage support registered.
md: Autodetecting RAID arrays.
md: autorun ...
md: considering hdc8 ...
md: adding hdc8 ...
md: hdc7 has different UUID to hdc8
md: hdc6 has different UUID to hdc8
md: hdc5 has different UUID to hdc8
md: hdc3 has different UUID to hdc8
md: hdc1 has different UUID to hdc8
md: adding hda8 ...
md: hda7 has different UUID to hdc8
md: hda6 has different UUID to hdc8
md: hda5 has different UUID to hdc8
md: hda3 has different UUID to hdc8
md: hda1 has different UUID to hdc8
md: created md0
md: bind<hda8>
md: bind<hdc8>
md: running: <hdc8><hda8>
raid1: raid set md0 active with 2 out of 2 mirrors
md: considering hdc7 ...
md: adding hdc7 ...
md: hdc6 has different UUID to hdc7
md: hdc5 has different UUID to hdc7
md: hdc3 has different UUID to hdc7
md: hdc1 has different UUID to hdc7
md: adding hda7 ...
md: hda6 has different UUID to hdc7
md: hda5 has different UUID to hdc7
md: hda3 has different UUID to hdc7
md: hda1 has different UUID to hdc7
md: created md2
md: bind<hda7>
md: bind<hdc7>
md: running: <hdc7><hda7>
raid1: raid set md2 active with 2 out of 2 mirrors
md: considering hdc6 ...
md: adding hdc6 ...
md: hdc5 has different UUID to hdc6
md: hdc3 has different UUID to hdc6
md: hdc1 has different UUID to hdc6
md: adding hda6 ...
md: hda5 has different UUID to hdc6
md: hda3 has different UUID to hdc6
md: hda1 has different UUID to hdc6
md: created md3

md: bind<hda6>
md: bind<hdc6>
md: running: <hdc6><hda6>
raid1: raid set md3 active with 2 out of 2 mirrors
md: considering hdc5 ...
md: adding hdc5 ...
md: hdc3 has different UUID to hdc5
md: hdc1 has different UUID to hdc5
md: adding hda5 ...
md: hda3 has different UUID to hdc5
md: hda1 has different UUID to hdc5
md: created md4
md: bind<hda5>
md: bind<hdc5>
md: running: <hdc5><hda5>
raid1: raid set md4 active with 2 out of 2 mirrors
md: considering hdc3 ...
md: adding hdc3 ...
md: hdc1 has different UUID to hdc3
md: adding hda3 ...
md: hda1 has different UUID to hdc3
md: created md5
md: bind<hda3>
md: bind<hdc3>
md: running: <hdc3><hda3>
raid1: raid set md5 active with 2 out of 2 mirrors
md: considering hdc1 ...
md: adding hdc1 ...
md: adding hda1 ...
md: created md1
md: bind<hda1>
md: bind<hdc1>
md: running: <hdc1><hda1>
raid1: raid set md1 active with 2 out of 2 mirrors
md: ... autorun DONE.
kjournald starting. Commit interval 5 seconds
EXT3-fs: mounted filesystem with ordered data mode.
shpchp: Standard Hot Plug PCI Controller Driver version: 0.4
8139cp: 10/100 PCI Ethernet driver v1.2 (Mar 22, 2004)
8139cp 0000:06:00.0: This (id 10ec:8139 rev 10) is not an 8139C+ compatible chip
8139cp 0000:06:00.0: Try the "8139too" driver instead.
8139too Fast Ethernet driver 0.9.27
ACPI: PCI Interrupt 0000:06:00.0[A] -> GSI 21 (level, low) -> IRQ 20
eth0: RealTek RTL8139 at 0x1000, 00:14:78:06:60:a0, IRQ 20
eth0: Identified 8139 chip type 'RTL-8100B/8139D'
floppy0: no floppy controllers found
lp: driver loaded but no devices found
ACPI: Power Button (FF) [PWRF]

ACPI: Sleep Button (CM) [SLPB]
Using specific hotkey driver
floppy0: no floppy controllers found
lp: driver loaded but no devices found
ACPI: Power Button (FF) [PWRF]
ACPI: Sleep Button (CM) [SLPB]
Using specific hotkey driver
ibm_acpi: ec object not found
ACPI: Processor [CPU0] (supports 8 throttling states)
ACPI: Processor [CPU1] (supports 8 throttling states)
ACPI: Processor [CPU2] (supports 8 throttling states)
ACPI: Processor [CPU3] (supports 8 throttling states)
md: Autodetecting RAID arrays.
md: autorun ...
md: ... autorun DONE.
EXT3 FS on md2, internal journal
kjournald starting. Commit interval 5 seconds
EXT3 FS on md1, internal journal
EXT3-fs: mounted filesystem with ordered data mode.
kjournald starting. Commit interval 5 seconds
EXT3 FS on md3, internal journal
EXT3-fs: mounted filesystem with ordered data mode.
kjournald starting. Commit interval 5 seconds
EXT3 FS on md5, internal journal
EXT3-fs: mounted filesystem with ordered data mode.
kjournald starting. Commit interval 5 seconds
EXT3 FS on md4, internal journal
EXT3-fs: mounted filesystem with ordered data mode.
kjournald starting. Commit interval 5 seconds
EXT3 FS on md0, internal journal
EXT3-fs: mounted filesystem with ordered data mode.
Adding 8193140k swap on /dev/hdc2. Priority:-1 extents:1 across:8193140k
Adding 8193140k swap on /dev/hda2. Priority:-2 extents:1 across:8193140k
ip_tables: (C) 2000-2006 Netfilter Core Team
ip_conntrack: parameter ip_conntrack_enable_ve0 is obsoleted. In ovzkernel >= 2.6.15
connection tracking on hardware node is enabled by default
, use ip_conntrack_disable_ve0=1 parameter to disable.
ip_conntrack version 2.4 (8192 buckets, 65536 max) - 208 bytes per conntrack
process `sysctl' is using deprecated sysctl (syscall) net.ipv6.neigh.lo.retrans_time; Use
net.ipv6.neigh.lo.retrans_time_ms instead.
NET: Registered protocol family 17
eth0: link up, 100Mbps, full-duplex, lpa 0x41E1
NET: Unregistered protocol family 17
NET: Registered protocol family 17
tun: Universal TUN/TAP device driver, 1.6
tun: (C) 1999-2004 Max Krasnyansky <maxk@qualcomm.com>
CT: 134: started
eth0: no IPv6 routers present

CT: 140: started

CT: 192: started

/usr/sbin/dmidecode

dmidecode 2.7

SMBIOS 2.4 present.

36 structures occupying 1679 bytes.

Table at 0x000E3370.

Handle 0x0000, DMI type 4, 35 bytes.

Processor Information

Socket Designation: J1PR

Type: Central Processor

Family: <OUT OF SPEC>

Manufacturer: Intel(R) Corporation

ID: FB 06 00 00 FF FB EB BF

Version: Intel(R) Core(TM)2 Quad CPU Q6600 @ 2.40GHz

Voltage: 1.6 V

External Clock: 266 MHz

Max Speed: 4000 MHz

Current Speed: 2400 MHz

Status: Populated, Enabled

Upgrade: <OUT OF SPEC>

L1 Cache Handle: 0x0003

L2 Cache Handle: 0x0001

L3 Cache Handle: Not Provided

Serial Number: Not Specified

Asset Tag: Not Specified

Part Number: Not Specified

Handle 0x0001, DMI type 7, 19 bytes.

Cache Information

Socket Designation: Unknown

Configuration: Enabled, Not Socketed, Level 2

Operational Mode: Write Back

Location: Internal

Installed Size: 4096 KB

Maximum Size: 4096 KB

Supported SRAM Types:

Asynchronous

Installed SRAM Type: Asynchronous

Speed: Unknown

Error Correction Type: Single-bit ECC

System Type: Unified

Associativity: 16-way Set-associative

Handle 0x0002, DMI type 7, 19 bytes.

Cache Information

Socket Designation: Unknown
Configuration: Enabled, Not Socketed, Level 1
Operational Mode: Write Back
Location: Internal
Installed Size: 32 KB
Maximum Size: 32 KB
Supported SRAM Types:
 Asynchronous
Installed SRAM Type: Asynchronous
Speed: Unknown
Error Correction Type: Single-bit ECC
System Type: Instruction
Associativity: 8-way Set-associative

Handle 0x0003, DMI type 7, 19 bytes.

Cache Information

Socket Designation: Unknown
Configuration: Enabled, Not Socketed, Level 1
Operational Mode: Write Back
Location: Internal
Installed Size: 32 KB
Maximum Size: 32 KB
Supported SRAM Types:
 Asynchronous
Installed SRAM Type: Asynchronous
Speed: Unknown
Error Correction Type: Single-bit ECC
System Type: Data
Associativity: 8-way Set-associative

Handle 0x0004, DMI type 0, 24 bytes.

BIOS Information

Vendor: Intel Corp.
Version: DPP3510J.86A.0287.2007.0920.1254
Release Date: 09/20/2007
Address: 0xF0000
Runtime Size: 64 kB
ROM Size: 1024 kB
Characteristics:
 PCI is supported
 BIOS is upgradeable
 BIOS shadowing is allowed
 Boot from CD is supported
 Selectable boot is supported
 EDD is supported

8042 keyboard services are supported (int 9h)
Serial services are supported (int 14h)
Printer services are supported (int 17h)
CGA/mono video services are supported (int 10h)
ACPI is supported
USB legacy is supported
ATAPI Zip drive boot is supported
BIOS boot specification is supported
Function key-initiated network boot is supported
Targeted content distribution is supported
BIOS Revision: 0.0
Firmware Revision: 0.0

Handle 0x0005, DMI type 1, 27 bytes.

System Information

Manufacturer:
Product Name:
Version:
Serial Number:
UUID: 1DE70804-55ED-11DC-8370-000EA68F73C1
Wake-up Type: Power Switch
SKU Number: Not Specified
Family: Not Specified

Handle 0x0006, DMI type 2, 20 bytes.

Base Board Information

Manufacturer: Intel Corporation
Product Name: DG33BU
Version: AAD79951-405
Serial Number: AZBU7350032Z
Asset Tag: Base Board Asset Tag
Features:
 Board is a hosting board
 Board is replaceable
Location In Chassis: Base Board Chassis Location
Chassis Handle: 0x0007
Type: Unknown
Contained Object Handles: 0

Handle 0x0007, DMI type 3, 17 bytes.

Chassis Information

Manufacturer:
Type: Unknown
Lock: Not Present
Version:
Serial Number:
Asset Tag:
Boot-up State: Safe

Power Supply State: Safe
Thermal State: Other
Security Status: Other
OEM Information: 0x00000000

Handle 0x0008, DMI type 8, 9 bytes.

Port Connector Information

Internal Reference Designator: PRIMARY
Internal Connector Type: On Board IDE
External Reference Designator: Not Specified
External Connector Type: None
Port Type: Other

Handle 0x0009, DMI type 8, 9 bytes.

Port Connector Information

Internal Reference Designator: SECONDARY
Internal Connector Type: On Board IDE
External Reference Designator: Not Specified
External Connector Type: None
Port Type: Other

Handle 0x000A, DMI type 8, 9 bytes.

Port Connector Information

Internal Reference Designator: ATX_PWR
Internal Connector Type: Other
External Reference Designator: Not Specified
External Connector Type: None
Port Type: Other

Handle 0x000B, DMI type 9, 13 bytes.

System Slot Information

Designation: PCIE X16 SLOT
Type: x16 PCI Express
Current Usage: Available
Length: Short
Characteristics:
 3.3 V is provided

Handle 0x000C, DMI type 9, 13 bytes.

System Slot Information

Designation: PCIE X1 SLOT 1
Type: x1 PCI Express
Current Usage: Available
Length: Short
Characteristics:
 3.3 V is provided
 PME signal is supported
 SMBus signal is supported

Handle 0x000D, DMI type 9, 13 bytes.

System Slot Information

Designation: PCI SLOT 1

Type: 32-bit PCI

Current Usage: In Use

Length: Long

ID: 1

Characteristics:

3.3 V is provided

PME signal is supported

SMBus signal is supported

Handle 0x000E, DMI type 9, 13 bytes.

System Slot Information

Designation: PCI SLOT 2

Type: 32-bit PCI

Current Usage: Available

Length: Long

ID: 2

Characteristics:

3.3 V is provided

PME signal is supported

SMBus signal is supported

Handle 0x000F, DMI type 10, 6 bytes.

On Board Device Information

Type: Video

Status: Enabled

Description: Unknown Video Device

Handle 0x0010, DMI type 10, 6 bytes.

On Board Device Information

Type: Ethernet

Status: Disabled

Description: Unknown Ethernet Device

Handle 0x0011, DMI type 10, 6 bytes.

On Board Device Information

Type: Sound

Status: Disabled

Description: Intel(R) High Definition Audio Device

Handle 0x0012, DMI type 13, 22 bytes.

BIOS Language Information

Installable Languages: 1

enUS

Currently Installed Language: enUS

Handle 0x0013, DMI type 32, 20 bytes.

System Boot Information

Status: No errors detected

Handle 0x0014, DMI type 16, 15 bytes.

Physical Memory Array

Location: System Board Or Motherboard

Use: System Memory

Error Correction Type: None

Maximum Capacity: 8 GB

Error Information Handle: Not Provided

Number Of Devices: 4

Handle 0x0015, DMI type 17, 27 bytes.

Memory Device

Array Handle: 0x0014

Error Information Handle: Not Provided

Total Width: 64 bits

Data Width: 64 bits

Size: 2048 MB

Form Factor: DIMM

Set: None

Locator: J6H1

Bank Locator: CHAN A DIMM 0

Type: DDR2

Type Detail: Synchronous

Speed: 800 MHz (1.2 ns)

Manufacturer: 0x7F7F7F7F7F7F3400

Serial Number: 0xFFFFFFFF

Asset Tag: Unknown

Part Number: 0x535550455254414C454E5430320000000000

Handle 0x0016, DMI type 20, 19 bytes.

Memory Device Mapped Address

Starting Address: 0x000000000000

Ending Address: 0x0007FFFFFFFF

Range Size: 2 GB

Physical Device Handle: 0x0015

Memory Array Mapped Address Handle: 0x001D

Partition Row Position: 1

Interleave Position: 1

Interleaved Data Depth: 1

Handle 0x0017, DMI type 17, 27 bytes.

Memory Device

Array Handle: 0x0014

Error Information Handle: Not Provided

Total Width: 64 bits
Data Width: 64 bits
Size: 2048 MB
Form Factor: DIMM
Set: None
Locator: J6H2
Bank Locator: CHAN A DIMM 1
Type: DDR2
Type Detail: Synchronous
Speed: 800 MHz (1.2 ns)
Manufacturer: 0x004D415500000000
Serial Number: 0x00000000
Asset Tag: Unknown
Part Number: 0x535550455254414C454E5400000000000000

Handle 0x0018, DMI type 20, 19 bytes.

Memory Device Mapped Address

Starting Address: 0x00080000000
Ending Address: 0x000FFFFFFFF
Range Size: 2 GB
Physical Device Handle: 0x0017
Memory Array Mapped Address Handle: 0x001D
Partition Row Position: 1
Interleave Position: 1
Interleaved Data Depth: 1

Handle 0x0019, DMI type 17, 27 bytes.

Memory Device

Array Handle: 0x0014
Error Information Handle: Not Provided
Total Width: 64 bits
Data Width: 64 bits
Size: 2048 MB
Form Factor: DIMM
Set: None
Locator: J6J1
Bank Locator: CHAN B DIMM 0
Type: DDR2
Type Detail: Synchronous
Speed: 800 MHz (1.2 ns)
Manufacturer: 0x7F7F7F7F7F7F3400
Serial Number: 0x00000000
Asset Tag: Unknown
Part Number: 0x535550455254414C454E5430310000000000

Handle 0x001A, DMI type 20, 19 bytes.

Memory Device Mapped Address

Starting Address: 0x00100000000

Ending Address: 0x0017FFFFFFFF
Range Size: 2 GB
Physical Device Handle: 0x0019
Memory Array Mapped Address Handle: 0x001D
Partition Row Position: 2
Interleave Position: 2
Interleaved Data Depth: 1

Handle 0x001B, DMI type 17, 27 bytes.

Memory Device

Array Handle: 0x0014
Error Information Handle: Not Provided
Total Width: 64 bits
Data Width: 64 bits
Size: 2048 MB
Form Factor: DIMM
Set: None
Locator: J6J2
Bank Locator: CHAN B DIMM 1
Type: DDR2
Type Detail: Synchronous
Speed: 800 MHz (1.2 ns)
Manufacturer: 0x004D415500000000
Serial Number: 0x00000000
Asset Tag: Unknown
Part Number: 0x535550455254414C454E5400000000000000

Handle 0x001C, DMI type 20, 19 bytes.

Memory Device Mapped Address

Starting Address: 0x001800000000
Ending Address: 0x001FFFFFFFFF
Range Size: 2 GB
Physical Device Handle: 0x001B
Memory Array Mapped Address Handle: 0x001D
Partition Row Position: 2
Interleave Position: 2
Interleaved Data Depth: 1

Handle 0x001D, DMI type 19, 15 bytes.

Memory Array Mapped Address

Starting Address: 0x000000000000
Ending Address: 0x001FFFFFFFFF
Range Size: 8 GB
Physical Array Handle: 0x0014
Partition Width: 0

Handle 0x001E, DMI type 187, 9 bytes.

OEM-specific Type

Header and Data:

BB 09 1E 00 15 00 03 20 03

Handle 0x001F, DMI type 187, 9 bytes.

OEM-specific Type

Header and Data:

BB 09 1F 00 17 00 03 20 03

Handle 0x0020, DMI type 187, 9 bytes.

OEM-specific Type

Header and Data:

BB 09 20 00 19 00 03 20 03

Handle 0x0021, DMI type 187, 9 bytes.

OEM-specific Type

Header and Data:

BB 09 21 00 1B 00 03 20 03

Handle 0x0022, DMI type 136, 6 bytes.

OEM-specific Type

Header and Data:

88 06 22 00 5A 5A

Handle 0xFEFF, DMI type 127, 4 bytes.

End Of Table

Subject: Re: kernel PAE and ENT very slow

Posted by [TheWiseOne](#) on Mon, 12 May 2008 18:38:49 GMT

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PAE is known to be slow, why not run a 64-bit system?

Subject: Re: kernel PAE and ENT very slow

Posted by [goeldi](#) on Mon, 12 May 2008 19:24:23 GMT

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I have a lot of PAE systems running, but this is something different. The slowness of this system is translated as "not responding anymore".

This is a productive system. No way to install a 64bit system.

Subject: Re: kernel PAE and ENT very slow

Posted by [philwo](#) on Mon, 12 May 2008 21:11:57 GMT

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This maybe an MTRR issue. I experienced that after a BIOS upgrade on a DG965WH. The system boots so extremely slow that you could think it stopped responding at all, something like 10 seconds for each line of kernel output with pauses of 5 minutes in between sometimes. This is the effect of a BIOS bug, maybe an upgrade helps for you.

Have a look at this thread: <http://forums.fedoraforum.org/showthread.php?t=157232> Note that they're talking about 64bit Linux, but this affects 32bit also.

Kernel 2.6.25 includes a workaround which detects this issue and uses only so much RAM as possible without a slowdown.
