

coreboot - Bug #86

IRQ errors precede slow down of tape I/O, via SCSI and PCI/PCIe bridge

12/12/2016 07:35 PM - Andrew Engelbrecht

Status:	New	Start date:	12/12/2016
Priority:	Normal	Due date:	
Assignee:	Timothy Pearson	% Done:	0%
Category:	board support	Estimated time:	0.00 hour
Target version:			

Description

On the KGPE-D16 with commit 4.5-566-geb9c639 there two IRQ errors that appear soon after boot and use of a SCSI tape device, which appear to cause a reduced tape speed. The tape library is connected via SCSI to a Symbios Logic 53c895 adapter, via an ASMedia ASM1083/1085 PCIe to PCI Bridge.

At first read speeds are about 60 MB/s, then the system may hang for a few seconds and IRQ errors appear on the screen. At this time, iotop shows that the speed reduces 10 MB/s. If not using microcode, the speed is reduced to 100 KB/s. This may also be the case when using the 20160907 libreboot config to build a recent upstream coreboot, with or without microcode, seemingly caused by use of static option tables.

I have attempted to boot with the irqpoll option, but this did not resolve the issue. I am using iommu=soft, as this is the only way that the tape device is being recognized by the system. Otherwise, dmesg logged the following:

```
# grep -i -e 07:00 -e sym0 < dmesg
[ 1.320378] pci 0000:07:00.0: [1000:000c] type 00 class 0x010000
[ 1.320396] pci 0000:07:00.0: reg 0x10: [io 0x3000-0x30ff]
[ 1.320408] pci 0000:07:00.0: reg 0x14: [mem 0xfcb11000-0xfcb110ff]
[ 1.320421] pci 0000:07:00.0: reg 0x18: [mem 0xfcb10000-0xfcb10fff]
[ 1.320465] pci 0000:07:00.0: reg 0x30: [mem 0xfcb00000-0xfcb0ffff pref]
[ 4.715481] AMD-Vi: Using IVRS reported alias 06:00.0 for device 0000:07:00.0[1000:000c], kernel reported alias 07:00.0
[ 4.726275] iommu: Adding device 0000:07:00.0 to group 12
[ 5.129228] pci 0000:07:00.0: Signaling PME through PCIe PME interrupt
[ 14.166969] sym0: <895> rev 0x2 at pci 0000:07:00.0 irq 38
[ 14.169181] sym0: Symbios NVRAM, ID 7, Fast-40, LVD, parity checking
[ 14.169182] sym0: open drain IRQ line driver, using on-chip SRAM
[ 14.169183] sym0: using LOAD/STORE-based firmware.
[ 14.169224] CACHE TEST FAILED: DMA error (dstat=0x81).sym0: CACHE INCORRECTLY CONFIGURED.
[ 14.169225] sym0: giving up ...
[ 14.169231] AMD-Vi: Event logged [IO_PAGE_FAULT device=07:00.0 domain=0x0000 address=0x0000000000001900 flags=0x0050]
[ 14.169233] AMD-Vi: Event logged [IO_PAGE_FAULT device=07:00.0 domain=0x0000 address=0x0000000000001940 flags=0x0050]
[ 14.169235] AMD-Vi: Event logged [IO_PAGE_FAULT device=07:00.0 domain=0x0000 address=0x0000000000001900 flags=0x0050]
[ 14.169237] AMD-Vi: Event logged [IO_PAGE_FAULT device=07:00.0 domain=0x0000 address=0x0000000000001940 flags=0x0050]
```

Here is the dmesg output when attempting to read from tape, when using iommu=soft:

```
[ 13.788004] sym0: <895> rev 0x2 at pci 0000:07:00.0 irq 36
[ 13.790154] sym0: Symbios NVRAM, ID 7, Fast-40, LVD, parity checking
[ 13.790154] sym0: open drain IRQ line driver, using on-chip SRAM
[ 13.790155] sym0: using LOAD/STORE-based firmware.
[ 13.796592] sym0: SCSI BUS has been reset.
...
[ 109.913335] irq 36: nobody cared (try booting with the "irqpoll" option)
[ 109.920562] CPU: 0 PID: 3 Comm: ksoftirqd/0 Not tainted 4.2.0-42-generic #49~14.04.1+7.Otrisquel1
[ 109.920564] Hardware name: ASUS KGPE-D16/KGPE-D16, BIOS 4.5-566-geb9c639 12/09/2016
```

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[ 109.920567] 0000000000000000 ffff88013bc03e08 ffffffff817c323d ffff8800bb8d3800
[ 109.920571] ffff8800bb8d38bc ffff88013bc03e38 ffffffff810d3406 ffff88013bc03e28
[ 109.920574] ffff8800bb8d3800 0000000000000024 0000000000000000 ffff88013bc03e88
[ 109.920577] Call Trace:
[ 109.920579] <IRQ> [<ffffffffff817c323d>] dump_stack+0x63/0x81
[ 109.920591] [<ffffffffff810d3406>] __report_bad_irq+0x36/0xd0
[ 109.920594] [<ffffffffff810d3912>] note_interrupt+0x222/0x280
[ 109.920597] [<ffffffffff810d0e14>] handle_irq_event_percpu+0xb4/0x1d0
[ 109.920600] [<ffffffffff810d0f79>] handle_irq_event+0x49/0x70
[ 109.920603] [<ffffffffff810d3d9a>] handle_fasteoi_irq+0x9a/0x150
[ 109.920606] [<ffffffffff81018255>] handle_irq+0x25/0x40
[ 109.920609] [<ffffffffff817cd2b1>] do_IRQ+0x51/0xe0
[ 109.920613] [<ffffffffff817cb22b>] common_interrupt+0x6b/0x6b
[ 109.920614] <EOI> [<ffffffffff8177209b>] ? ip6_pol_route.isra.38+0x29b/0x570
[ 109.920620] [<ffffffffff81771ed2>] ? ip6_pol_route.isra.38+0xd2/0x570
[ 109.920623] [<ffffffffff81772370>] ? ip6_pol_route.isra.38+0x570/0x570
[ 109.920626] [<ffffffffff8177239b>] ip6_pol_route_input+0x2b/0x30
[ 109.920629] [<ffffffffff8179a76f>] fib6_rule_action+0xaf/0x1e0
[ 109.920632] [<ffffffffff816f23b5>] ? nf_hook_slow+0xa5/0xc0
[ 109.920636] [<ffffffffff816dc4a0>] fib_rules_lookup+0xc0/0x160
[ 109.920638] [<ffffffffff8179aa54>] fib6_rule_lookup+0x44/0x70
[ 109.920641] [<ffffffffff81772370>] ? ip6_pol_route.isra.38+0x570/0x570
[ 109.920644] [<ffffffffff81770b0a>] ip6_route_input_lookup.isra.39+0x4a/0x60
[ 109.920646] [<ffffffffff817727fd>] ip6_route_input+0x9d/0xc0
[ 109.920650] [<ffffffffff81764fd3>] ip6_rcv_finish+0x83/0xa0
[ 109.920653] [<ffffffffff817657a6>] ipv6_rcv+0x2d6/0x500
[ 109.920656] [<ffffffffff816f94c6>] ? ip_rcv+0x296/0x400
[ 109.920659] [<ffffffffff816bebad>] __netif_receive_skb_core+0x65d/0x9c0
[ 109.920662] [<ffffffffff817339c1>] ? inet_gro_receive+0x1e1/0x210
[ 109.920665] [<ffffffffff816bef28>] __netif_receive_skb+0x18/0x60
[ 109.920668] [<ffffffffff816bef93>] netif_receive_skb_internal+0x23/0x80
[ 109.920670] [<ffffffffff816bfa3>] napi_gro_receive+0xd3/0x100
[ 109.920689] [<ffffffffffc0812446>] e1000_receive_skb+0x86/0xe0 [e1000e]
[ 109.920698] [<ffffffffffc08140b9>] e1000_clean_rx_irq+0x269/0x410 [e1000e]
[ 109.920707] [<ffffffffffc081b200>] e1000e_poll+0x90/0x2a0 [e1000e]
[ 109.920710] [<ffffffffff816bf3c4>] net_rx_action+0x164/0x350
[ 109.920713] [<ffffffffff8107db3d>] __do_softirq+0xdd/0x290
[ 109.920716] [<ffffffffff8107dd18>] run_ksoftirqd+0x28/0x50
[ 109.920719] [<ffffffffff8109adfd>] smpboot_thread_fn+0x10f/0x160
[ 109.920722] [<ffffffffff8109acd0>] ? sort_range+0x30/0x30
[ 109.920725] [<ffffffffff81097a99>] kthread+0xc9/0xe0
[ 109.920727] [<ffffffffff810979d0>] ? kthread_create_on_node+0x1c0/0x1c0
[ 109.920730] [<ffffffffff817caadf>] ret_from_fork+0x3f/0x70
[ 109.920733] [<ffffffffff810979d0>] ? kthread_create_on_node+0x1c0/0x1c0
[ 109.920734] handlers:
[ 109.923566] [<ffffffffffc02169d0>] sym53c8xx_intr [sym53c8xx]
[ 109.929719] Disabling IRQ #36
[ 124.269335] irq 20: nobody cared (try booting with the "irqpoll" option)
[ 124.276603] CPU: 0 PID: 0 Comm: swapper/0 Not tainted 4.2.0-42-generic #49~14.04.1+7.0trisquel1
[ 124.276606] Hardware name: ASUS KGPE-D16/KGPE-D16, BIOS 4.5-566-geb9c639 12/09/2016
[ 124.276609] 0000000000000000 ffff88013bc03e08 ffffffff817c323d ffff8800368d4000
[ 124.276613] ffff8800368d40bc ffff88013bc03e38 ffffffff810d3406 ffff88013bc03e28
[ 124.276616] ffff8800368d4000 0000000000000014 0000000000000000 ffff88013bc03e88
[ 124.276619] Call Trace:
[ 124.276621] <IRQ> [<ffffffffff817c323d>] dump_stack+0x63/0x81
[ 124.276633] [<ffffffffff810d3406>] __report_bad_irq+0x36/0xd0
[ 124.276637] [<ffffffffff810d3912>] note_interrupt+0x222/0x280
[ 124.276640] [<ffffffffff810d0e14>] handle_irq_event_percpu+0xb4/0x1d0
[ 124.276643] [<ffffffffff810d0f79>] handle_irq_event+0x49/0x70
[ 124.276645] [<ffffffffff810d3d9a>] handle_fasteoi_irq+0x9a/0x150
[ 124.276649] [<ffffffffff81018255>] handle_irq+0x25/0x40
[ 124.276652] [<ffffffffff817cd2b1>] do_IRQ+0x51/0xe0
[ 124.276656] [<ffffffffff817cb22b>] common_interrupt+0x6b/0x6b
[ 124.276657] <EOI> [<ffffffffff8105f296>] ? native_safe_halt+0x6/0x10
[ 124.276665] [<ffffffffff8101fd5e>] default_idle+0x1e/0xe0
[ 124.276668] [<ffffffffff8102054f>] arch_cpu_idle+0xf/0x20
[ 124.276671] [<ffffffffff810ba2f2>] default_idle_call+0x32/0x40

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[ 124.276673] [<ffffff810ba649>] cpu_startup_entry+0x2e9/0x360
[ 124.276676] [<ffffff817b312c>] rest_init+0x7c/0x80
[ 124.276680] [<ffffff81d5311f>] start_kernel+0x4b0/0x4bd
[ 124.276682] [<ffffff81d52a54>] ? set_init_arg+0x57/0x57
[ 124.276686] [<ffffff81d52120>] ? early_idt_handler_array+0x120/0x120
[ 124.276688] [<ffffff81d525ee>] x86_64_start_reservations+0x2a/0x2c
[ 124.276690] [<ffffff81d5272d>] x86_64_start_kernel+0x13d/0x14c
[ 124.276692] handlers:
[ 124.279478] [<ffffffc0034d50>] irq_handler [firewire_ohci]
[ 124.285629] Disabling IRQ #20

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History

#1 - 12/12/2016 07:38 PM - Andrew Engelbrecht

Here is the coreboot config file for fastest read speeds from tape, post-IRQ error:

```

# This image was built using coreboot 4.5-566-geb9c639
CONFIG_VENDOR_ASUS=y
CONFIG_BOARD_ASUS_KGPE_D16=y
CONFIG_DRIVERS_PS2_KEYBOARD=y
CONFIG_MEMTEST_SECONDARY_PAYLOAD=y

```

#2 - 12/12/2016 08:04 PM - Andrew Engelbrecht

It appears that there are IRQ errors when using the proprietary bios as well, both with and without iommu=soft.

Proprietary bios with irqpoll and iommu=soft:

```

# dmesg | grep -i -e 04:00 -e sym0
[ 1.166920] pci 0000:04:00.0: [1000:000c] type 00 class 0x010000
[ 1.166938] pci 0000:04:00.0: reg 0x10: [io 0xc000-0xc0ff]
[ 1.166951] pci 0000:04:00.0: reg 0x14: [mem 0xfbdffc00-0xfbdffcff]
[ 1.166963] pci 0000:04:00.0: reg 0x18: [mem 0xfbdfe000-0xfbdfefff]
[ 1.167007] pci 0000:04:00.0: reg 0x30: [mem 0xfbd00000-0xfbd0ffff pref]
[ 5.634836] pci 0000:04:00.0: Signaling PME through PCIe PME interrupt
[ 25.102022] sym0: <895> rev 0x2 at pci 0000:04:00.0 irq 40
[ 25.104843] sym0: Symbios NVRAM, ID 7, Fast-40, LVD, parity checking
[ 25.104844] sym0: open drain IRQ line driver, using on-chip SRAM
[ 25.104844] sym0: using LOAD/STORE-based firmware.
[ 25.111489] sym0: SCSI BUS has been reset.

[ 284.495245] irq 40: nobody cared (try booting with the "irqpoll" option)
[ 284.501974] CPU: 0 PID: 0 Comm: swapper/0 Not tainted 4.2.0-42-generic #49~14.04.1+7.0trisquel1
[ 284.501976] Hardware name: ASUSTeK Computer INC. KGP(M)E-D16/KGP(M)E-D16, BIOS 3309 06/16/2016
[ 284.501978] 0000000000000000 ffff880123c03cb0 fffffff817c323d ffff8801225f0000
[ 284.501981] ffff8801225f00bc ffff880123c03ce0 fffffff810d3406 ffff880123c03cd0
[ 284.501983] ffff8801225f0000 0000000000000000 0000000000000000 ffff880123c03d30
[ 284.501986] Call Trace:
[ 284.501987] <IRQ> [<ffffff817c323d>] dump_stack+0x63/0x81
[ 284.501998] [<ffffff810d3406>] __report_bad_irq+0x36/0xd0
[ 284.502000] [<ffffff810d3912>] note_interrupt+0x222/0x280
[ 284.502003] [<ffffff810d0e14>] handle_irq_event_percpu+0xb4/0x1d0
[ 284.502006] [<ffffff810d0f79>] handle_irq_event+0x49/0x70
[ 284.502008] [<ffffff810d3d9a>] handle_fasteoi_irq+0x9a/0x150
[ 284.502011] [<ffffff81018255>] handle_irq+0x25/0x40
[ 284.502013] [<ffffff817cd2b1>] do_IRQ+0x51/0xe0
[ 284.502017] [<ffffff817cb22b>] common_interrupt+0x6b/0x6b
[ 284.502020] [<ffffff8107dae1>] ? __do_softirq+0x81/0x290
[ 284.502021] [<ffffff8107df25>] irq_exit+0x95/0xa0
[ 284.502023] [<ffffff817cd2ba>] do_IRQ+0x5a/0xe0
[ 284.502026] [<ffffff817cb22b>] common_interrupt+0x6b/0x6b
[ 284.502027] <EOI> [<ffffff816627b8>] ? cpuidle_enter_state+0xd8/0x250

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[ 284.502033] [<ffffff81662794>] ? cpuidle_enter_state+0xb4/0x250
[ 284.502035] [<ffffff81662967>] cpuidle_enter+0x17/0x20
[ 284.502037] [<ffffff810ba332>] call_cpuidle+0x32/0x60
[ 284.502040] [<ffffff81662943>] ? cpuidle_select+0x13/0x20
[ 284.502041] [<ffffff810ba5f7>] cpu_startup_entry+0x297/0x360
[ 284.502044] [<ffffff817b312c>] rest_init+0x7c/0x80
[ 284.502047] [<ffffff81d5311f>] start_kernel+0x4b0/0x4bd
[ 284.502049] [<ffffff81d52a54>] ? set_init_arg+0x57/0x57
[ 284.502052] [<ffffff81d52120>] ? early_idt_handler_array+0x120/0x120
[ 284.502054] [<ffffff81d525ee>] x86_64_start_reservations+0x2a/0x2c
[ 284.502055] [<ffffff81d5272d>] x86_64_start_kernel+0x13d/0x14c
[ 284.502057] handlers:
[ 284.504353] [<ffffffc02c99d0>] sym53c8xx_intr [sym53c8xx]
[ 284.509960] Disabling IRQ #40
[ 290.230843] irq 20: nobody cared (try booting with the "irqpoll" option)
[ 290.238122] CPU: 0 PID: 0 Comm: swapper/0 Not tainted 4.2.0-42-generic #49~14.04.1+7.0trisquel1
[ 290.238124] Hardware name: ASUSTeK Computer INC. KGP(M)E-D16/KGP(M)E-D16, BIOS 3309 06/16/2016
[ 290.238126] 0000000000000000 ffff880123c03e08 ffffffff817c323d ffff8800d32b6000
[ 290.238130] ffff8800d32b60bc ffff880123c03e38 ffffffff810d3406 ffff880123c03e28
[ 290.238132] ffff8800d32b6000 0000000000000014 0000000000000000 ffff880123c03e88
[ 290.238134] Call Trace:
[ 290.238136] <IRQ> [<ffffff817c323d>] dump_stack+0x63/0x81
[ 290.238147] [<ffffff810d3406>] __report_bad_irq+0x36/0xd0
[ 290.238149] [<ffffff810d3912>] note_interrupt+0x222/0x280
[ 290.238152] [<ffffff810d0e14>] handle_irq_event_percpu+0xb4/0x1d0
[ 290.238154] [<ffffff810d0f79>] handle_irq_event+0x49/0x70
[ 290.238156] [<ffffff810d3d9a>] handle_fasteoi_irq+0x9a/0x150
[ 290.238159] [<ffffff81018255>] handle_irq+0x25/0x40
[ 290.238161] [<ffffff817cd2b1>] do_IRQ+0x51/0xe0
[ 290.238165] [<ffffff817cb22b>] common_interrupt+0x6b/0x6b
[ 290.238165] <EOI> [<ffffff810e9cde>] ? ktime_get+0x3e/0xa0
[ 290.238172] [<ffffff8105f296>] ? native_safe_halt+0x6/0x10
[ 290.238175] [<ffffff8146dd8c>] arch_safe_halt+0x9/0xd
[ 290.238177] [<ffffff8146e62e>] acpi_safe_halt+0x22/0x2b
[ 290.238179] [<ffffff8146e657>] acpi_idle_do_entry+0x20/0x30
[ 290.238182] [<ffffff8146e99d>] acpi_idle_enter+0x1da/0x205
[ 290.238184] [<ffffff8101e849>] ? read_tsc+0x9/0x10
[ 290.238188] [<ffffff81662778>] cpuidle_enter_state+0x98/0x250
[ 290.238190] [<ffffff81662967>] cpuidle_enter+0x17/0x20
[ 290.238192] [<ffffff810ba332>] call_cpuidle+0x32/0x60
[ 290.238195] [<ffffff81662943>] ? cpuidle_select+0x13/0x20
[ 290.238196] [<ffffff810ba5f7>] cpu_startup_entry+0x297/0x360
[ 290.238199] [<ffffff817b312c>] rest_init+0x7c/0x80
[ 290.238202] [<ffffff81d5311f>] start_kernel+0x4b0/0x4bd
[ 290.238204] [<ffffff81d52a54>] ? set_init_arg+0x57/0x57
[ 290.238206] [<ffffff81d52120>] ? early_idt_handler_array+0x120/0x120
[ 290.238208] [<ffffff81d525ee>] x86_64_start_reservations+0x2a/0x2c
[ 290.238210] [<ffffff81d5272d>] x86_64_start_kernel+0x13d/0x14c
[ 290.238211] handlers:
[ 290.241106] [<ffffffc0129d50>] irq_handler [firewire_ohci]
[ 290.247429] Disabling IRQ #20

```

Proprietary bios without irqpoll or iommu=soft:

```

# dmesg | grep -i -e 04:00 -e sym0
[ 1.154953] pci 0000:04:00.0: [1000:000c] type 00 class 0x010000
[ 1.154972] pci 0000:04:00.0: reg 0x10: [io 0xc000-0xc0ff]
[ 1.154984] pci 0000:04:00.0: reg 0x14: [mem 0xfbdffc00-0xfbdffcff]
[ 1.154997] pci 0000:04:00.0: reg 0x18: [mem 0xfbdfe000-0xfbdfefff]
[ 1.155041] pci 0000:04:00.0: reg 0x30: [mem 0xfbde0000-0xfbdeffff pref]
[ 5.636688] pci 0000:04:00.0: Signaling PME through PCIe PME interrupt
[ 23.160876] sym0: <895> rev 0x2 at pci 0000:04:00.0 irq 38
[ 23.163562] sym0: Symbios NVRAM, ID 7, Fast-40, LVD, parity checking
[ 23.163563] sym0: open drain IRQ line driver, using on-chip SRAM
[ 23.163564] sym0: using LOAD/STORE-based firmware.
[ 23.170197] sym0: SCSI BUS has been reset.

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[ 204.511843] irq 38: nobody cared (try booting with the "irqpoll" option)
[ 204.519397] CPU: 0 PID: 0 Comm: swapper/0 Not tainted 4.2.0-42-generic #49~14.04.1+7.0trisquel1
[ 204.519401] Hardware name: ASUSTeK Computer INC. KGP(M)E-D16/KGP(M)E-D16, BIOS 3309 06/16/2016
[ 204.519405] 0000000000000000 ffff88011bc03cb0 ffffffff817c323d ffff8800db703800

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[ 204.519410] ffff8800db7038bc ffff88011bc03ce0 ffffffff810d3406 0000000000000000
[ 204.519414] ffff8800db703800 0000000000000026 0000000000000000 ffff88011bc03d30
[ 204.519419] Call Trace:
[ 204.519422] <IRQ> [<fffffff817c323d>] dump_stack+0x63/0x81
[ 204.519438] [<fffffff810d3406>] __report_bad_irq+0x36/0xd0
[ 204.519443] [<fffffff810d3912>] note_interrupt+0x222/0x280
[ 204.519450] [<fffffff814d213a>] ? add_interrupt_randomness+0x3a/0x1c0
[ 204.519455] [<fffffff810d0e14>] handle_irq_event_percpu+0xb4/0x1d0
[ 204.519459] [<fffffff810d0f79>] handle_irq_event+0x49/0x70
[ 204.519464] [<fffffff810d3d9a>] handle_fasteoi_irq+0x9a/0x150
[ 204.519469] [<fffffff81018255>] handle_irq+0x25/0x40
[ 204.519473] [<fffffff817cd2b1>] do_IRQ+0x51/0xe0
[ 204.519479] [<fffffff817cb22b>] common_interrupt+0x6b/0x6b
[ 204.519484] [<fffffff8107dae1>] ? __do_softirq+0x81/0x290
[ 204.519488] [<fffffff8107df25>] irq_exit+0x95/0xa0
[ 204.519492] [<fffffff817cd2ba>] do_IRQ+0x5a/0xe0
[ 204.519496] [<fffffff817cb22b>] common_interrupt+0x6b/0x6b
[ 204.519498] <EOI> [<fffffff816627b8>] ? cpuidle_enter_state+0xd8/0x250
[ 204.519508] [<fffffff81662794>] ? cpuidle_enter_state+0xb4/0x250
[ 204.519513] [<fffffff81662967>] cpuidle_enter+0x17/0x20
[ 204.519517] [<fffffff810ba332>] call_cpuidle+0x32/0x60
[ 204.519522] [<fffffff81662943>] ? cpuidle_select+0x13/0x20
[ 204.519525] [<fffffff810ba5f7>] cpu_startup_entry+0x297/0x360
[ 204.519530] [<fffffff817b312c>] rest_init+0x7c/0x80
[ 204.519535] [<fffffff81d5311f>] start_kernel+0x4b0/0x4bd
[ 204.519539] [<fffffff81d52a54>] ? set_init_arg+0x57/0x57
[ 204.519543] [<fffffff81d52120>] ? early_idt_handler_array+0x120/0x120
[ 204.519547] [<fffffff81d525ee>] x86_64_start_reservations+0x2a/0x2c
[ 204.519551] [<fffffff81d5272d>] x86_64_start_kernel+0x13d/0x14c
[ 204.519553] handlers:
[ 204.522771] [<ffffffc02219d0>] sym53c8xx_intr [sym53c8xx]
[ 204.529329] Disabling IRQ #38
[ 205.278187] irq 20: nobody cared (try booting with the "irqpoll" option)
[ 205.285794] CPU: 0 PID: 0 Comm: swapper/0 Not tainted 4.2.0-42-generic #49~14.04.1+7.0trisquel1
[ 205.285798] Hardware name: ASUSTeK Computer INC. KGP(M)E-D16/KGP(M)E-D16, BIOS 3309 06/16/2016
[ 205.285801] 0000000000000000 ffff88011bc03e08 ffffffff817c323d ffff8800db701200
[ 205.285807] ffff8800db7012bc ffff88011bc03e38 ffffffff810d3406 0000000000000000
[ 205.285811] ffff8800db701200 0000000000000014 0000000000000000 ffff88011bc03e88
[ 205.285814] Call Trace:
[ 205.285817] <IRQ> [<fffffff817c323d>] dump_stack+0x63/0x81
[ 205.285832] [<fffffff810d3406>] __report_bad_irq+0x36/0xd0
[ 205.285837] [<fffffff810d3912>] note_interrupt+0x222/0x280
[ 205.285842] [<fffffff814d213a>] ? add_interrupt_randomness+0x3a/0x1c0
[ 205.285847] [<fffffff810d0e14>] handle_irq_event_percpu+0xb4/0x1d0
[ 205.285851] [<fffffff810d0f79>] handle_irq_event+0x49/0x70
[ 205.285855] [<fffffff810d3d9a>] handle_fasteoi_irq+0x9a/0x150
[ 205.285859] [<fffffff81018255>] handle_irq+0x25/0x40
[ 205.285863] [<fffffff817cd2b1>] do_IRQ+0x51/0xe0
[ 205.285868] [<fffffff817cb22b>] common_interrupt+0x6b/0x6b
[ 205.285870] <EOI> [<fffffff810e9cde>] ? ktime_get+0x3e/0xa0
[ 205.285879] [<fffff8105f296>] ? native_safe_halt+0x6/0x10
[ 205.285885] [<fffff8146dd8c>] arch_safe_halt+0x9/0xd
[ 205.285889] [<fffff8146e62e>] acpi_safe_halt+0x22/0x2b
[ 205.285892] [<fffff8146e657>] acpi_idle_do_entry+0x20/0x30
[ 205.285896] [<fffff8146e99d>] acpi_idle_enter+0x1da/0x205
[ 205.285900] [<fffff8101e849>] ? read_tsc+0x9/0x10
[ 205.285906] [<fffff81662778>] cpuidle_enter_state+0x98/0x250
[ 205.285910] [<fffff81662967>] cpuidle_enter+0x17/0x20
[ 205.285914] [<fffff810ba332>] call_cpuidle+0x32/0x60
[ 205.285918] [<fffff81662943>] ? cpuidle_select+0x13/0x20
[ 205.285921] [<fffff810ba5f7>] cpu_startup_entry+0x297/0x360
[ 205.285925] [<fffff817b312c>] rest_init+0x7c/0x80
[ 205.285930] [<fffff81d5311f>] start_kernel+0x4b0/0x4bd
[ 205.285933] [<fffff81d52a54>] ? set_init_arg+0x57/0x57
[ 205.285937] [<fffff81d52120>] ? early_idt_handler_array+0x120/0x120
[ 205.285940] [<fffff81d525ee>] x86_64_start_reservations+0x2a/0x2c
[ 205.285943] [<fffff81d5272d>] x86_64_start_kernel+0x13d/0x14c
[ 205.285945] handlers:
[ 205.289056] [<ffffffc0278d50>] irq_handler [firewire_ohci]
[ 205.295617] Disabling IRQ #20

```

#3 - 05/13/2017 09:59 PM - Nico Huber

- Assignee set to Timothy Pearson

#4 - 06/06/2017 06:28 PM - Andrew Engelbrecht

It appears that this issue is resolved by using a:

07:08.0 SCSI storage controller: LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI (rev c1)

and the iommu=soft kernel option.

#5 - 06/06/2017 06:31 PM - Andrew Engelbrecht

The issue may not be coreboot related.