

## Re: io\_apic & timer\_ack fix

**Source:** <http://linux.derkeiler.com/Mailing-Lists/Kernel/2004-04/2143.html>

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**Date:** 04/09/04

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Date: Sat, 10 Apr 2004 03:37:21 +1000

On Fri, 09 Apr 2004 at 08:39 +0000, Jon Grimm wrote:

> *Hmmm....*

>

> *I see that the following patch got pulled in by Andrew:*

>

> [http://linux.bkkbits.net:8080/linux-2.5/diffs/arch/i386/kernel/io\\_apic.c@1.85?nav=index.html/src/src/arch/src/arch/i3](http://linux.bkkbits.net:8080/linux-2.5/diffs/arch/i386/kernel/io_apic.c@1.85?nav=index.html/src/src/arch/src/arch/i3)

>

> *The patch had a couple bugs:*

> <http://seclists.org/lists/linux-kernel/2004/Mar/4152.html>

>

> *But the patch was pulled out entirely by Linus:*

>

> [http://linux.bkkbits.net:8080/linux-2.5/diffs/arch/i386/kernel/io\\_apic.c@1.88?nav=index.html/src/src/arch/src/arch/i3](http://linux.bkkbits.net:8080/linux-2.5/diffs/arch/i386/kernel/io_apic.c@1.88?nav=index.html/src/src/arch/src/arch/i3)

>

> *Was it determined that the fix was bogus? damaging? fixable?*

I thought the patch was OK with typos fixed.

> *I ask as I see behavior identical for which this patch seems to have*

> *been originally carved up for (buggy SMM BIOS at fault, but this was a*

> *workaround in the OS).*

>

> <http://marc.theaimsgroup.com/?l=linux-kernel&m=101604672921823&w=2>

> <http://www.ussg.iu.edu/hypermail/linux/kernel/0203.2/0698.html>

>

> *Its a fair answer to force the BIOS vendor to fix, but in the meantime,*

> *I'm trying to figure out how safe/unsafe the workaround patch is ?*

> *I've ran on it overnight (with the semi-colon's fixed) and it hasn't*

> *exhibited the troubling behavior (where timer interrupts seem stuck or*

> *in some cases just extremely slow.... and the 8259 IMR is mucked up when*

> *Linux isn't even touching anymore).*

I read the thread you mention about the IMR muckup along the way to creating my nforce2 patches – it was most enlightening as to how bad consumer computers can be.

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Prakash tracked his overheat to a buggy binary nvidia driver

<http://marc.theaimsgroup.com/?l=linux-kernel&m=108059111721363&w=2>  
and not Maciej's patch.

Thomas was tracking down C1 C2 etc states but I do not know the results of his search?

<http://marc.theaimsgroup.com/?l=linux-kernel&m=107972277920929&w=2>  
Was it a problem only with one machine?

I do not recollect any other threads indicating problems with the patch.

I remember rediffing my nforce2 io-apic patch using the 2.6.3-mm3 kernel with Maciej's patch and having no heat trouble. I am surprised it got pulled out but then I only tested it on one type of chipset.

BTW I just rebooted to my modified 2.6.3-mm3 and got my normal 38C cpu. I have to have timer\_ack=0 in my io-apic timer routing patch for nforce2 to get nmi\_debug=1 to work. This was all along the way to trying to stop lockups. In fact I have been running no timer\_ack kernel mods since December on 4 machines and all have been cool and hard lockup free.

Regards  
Ross Dickson

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