

## Re: stuck with 2.6.23.14 on x86\_64

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*Source:* <http://linux.derkeiler.com/Mailing-Lists/Kernel/2008-02/msg06567.html>

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- *From:* Randy Dunlap <[randy.dunlap@xxxxxxxxxx](mailto:randy.dunlap@xxxxxxxxxx)>
  - *Date:* Wed, 13 Feb 2008 09:16:42 -0800
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On Wed, 13 Feb 2008 10:21:23 +0100 Fabio Coatti wrote:

Alle martedì 12 febbraio 2008, Rafael J. Wysocki ha scritto:

On Tuesday, 12 of February 2008, Fabio Coatti wrote:

Alle martedì 12 febbraio 2008, Randy Dunlap ha scritto:

On Tue, 12 Feb 2008 15:03:41 +0100 Fabio Coatti wrote:

Hi all,  
I'm stuck in a weird  
situation: I'm unable to go  
beyond 2.6.23.14, so  
to fix the splice bug I've had  
to apply by hand the patch.  
(x86\_64)

Basically, with 2.6.24.2 (the  
same with 2.6.24 and .1),  
tha machine  
won't boot due to a problem  
with cciss driver, that  
prevents to find  
the / partition. (bug  
described here: Kernel Bug  
Tracker Bug 9859  
[http://bugzilla.kernel.org/show\\_bug.cgi?id=9859](http://bugzilla.kernel.org/show_bug.cgi?id=9859)  
);

With kernels 2.6.23, the  
lastest that I can compile is  
2.6.23.14;  
starting from .15 (and .16) I  
get this message:

=====

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```
UPD
include/linux/compile.h
CC init/version.o
LD init/built-in.o
LD .tmp_vmlinux1
drivers/built-in.o: In
function `acpi_init':
bus.c:(.init.text+0x1713):
undefined reference to
`pm_flags'
bus.c:(.init.text+0x1756):
undefined reference to
`pm_flags'
=====
```

All .config are the same,  
(make oldconfig) beside the  
obvious  
differences between .23 and  
.24

Hardware: x86\_64 AMD  
2216HE  
SCSI controller: HP Smart  
Array E200i Controller  
Compiler: gcc (GCC) 4.1.1  
binutils: 2.16.1

On a x86 machine, Intel(R)  
Xeon(TM) CPU 3.20GHz  
with a cciss0: HP Smart  
Array 6i Controller,  
the 2.6.24.2 compiles just  
fine and works, so the cciss  
problems  
seems related only to E200i  
controller.

Right now, on AMD64  
machines, I'm forced to  
patch by hand the kernel,  
that's quite uncomfortable :)

Can someone point me in  
the right direction to get out  
of this  
situation? Of course I can  
provide any further  
information. (.config  
not included now to avoid  
cluttering )

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Thanks for any answer.

a/ send .config file for the build problem above  
b/ How do you download and/or apply 2.6.23.{15,16} ?  
Full tarball or base tarball + patches?  
If patches, what base tree are they applied to?

full tarball from kernel.org (.16), tried also applying patches to 2.6.23  
vanilla.(.15,.16) Same process leads to successful compilation for .14

You're not supposed to have CONFIG\_PM unset and CONFIG\_ACPI set at the same time. The oldconfig generation must have gone wrong at one point.

Maybe it's not supposed to have this situation, but maybe you should tell this to the kernel itself :)

```
# zcat /proc/config.gz | egrep "PM|ACPI"  
CONFIG_X86_64_ACPI_NUMA=y  
# CONFIG_PM is not set  
CONFIG_ACPI=y  
# CONFIG_ACPI_PROCFS is not set  
  
# uname -rv  
2.6.23.12 #3 SMP Tue Feb 12 11:22:16 CET 2008
```

And you can easily get this situation from menuconfig: just fire up make menuconfig without any .config, go to power management options and turn off "Power Management support". exit and look at .config:

```
# CONFIG_PM is not set  
CONFIG_SUSPEND_SMP_POSSIBLE=y  
CONFIG_HIBERNATION_SMP_POSSIBLE=y  
CONFIG_ACPI=y
```

Maybe if this is not supposed to be the right situation, some dependencies are not respected... (tested on .16)

Yes, this is yet another select problem. X86\_64\_NUMA\_ACPI

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selects ACPI, even though PM is not enabled. :(

So you have a manual fix: just enable CONFIG\_PM.

Is this specific config important to you? I.e., do you want/need NUMA support? If so, you'll just need to continue enabling CONFIG\_PM.

I made a patch that prevents the select problem (see below [now added]).

The "select PCI" in the X86\_64\_ACPI\_NUMA config option is evil. :(

Anyway, with .16 and CONFIG\_PM set, I get this :

```
=====
WARNING: vmlinux.o(.text+0x1f6395): Section mismatch: reference
to .init.data.14:pxm_to_node_map (between 'pxm_to_node' and 'node_to_pxm')
WARNING: vmlinux.o(.text+0x1f63a7): Section mismatch: reference
to .init.data.14:node_to_pxm_map (between 'node_to_pxm'
and '__acpi_map_pxm_to_node')
WARNING: vmlinux.o(.text+0x1f63b2): Section mismatch: reference
to .init.data.14:pxm_to_node_map (between '__acpi_map_pxm_to_node'
and 'acpi_get_pxm')
WARNING: vmlinux.o(.text+0x1f63bc): Section mismatch: reference
to .init.data.14:node_to_pxm_map (between '__acpi_map_pxm_to_node'
and 'acpi_get_pxm')
WARNING: vmlinux.o(.text+0x1f6412): Section mismatch: reference
to .init.data.14:pxm_to_node_map (between 'acpi_map_pxm_to_node'
and 'acpi_get_node')
WARNING: vmlinux.o(.text+0x1f6458): Section mismatch: reference
to .init.data.14:pxm_to_node_map (between 'acpi_map_pxm_to_node'
and 'acpi_get_node')
WARNING: vmlinux.o(.text+0x1f645f): Section mismatch: reference
to .init.data.14:node_to_pxm_map (between 'acpi_map_pxm_to_node'
and 'acpi_get_node')
=====
```

Anyway, it booted and so far it runs without "splice" problem, thanks.

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From: Randy Dunlap <randy.dunlap@xxxxxxxxxxx>

Fix a kconfig 'select' problem: X86\_64\_NUMA\_ACPI selects ACPI,  
so ACPI could be enabled even when PM is not enabled.  
This causes a build failure, so make X86\_64\_NUMA\_ACPI depend on PM.

Signed-off-by: Randy Dunlap <randy.dunlap@xxxxxxxxxxx>

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arch/x86\_64/Kconfig | 2 +-  
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1 file changed, 1 insertion(+), 1 deletion(-)

```
--- linux-2.6.23.16.orig/arch/x86_64/Kconfig
+++ linux-2.6.23.16/arch/x86_64/Kconfig
@@ -367,7 +367,7 @@ config NODES_SHIFT
```

```
config X86_64_ACPI_NUMA
bool "ACPI NUMA detection"
- depends on NUMA
+ depends on NUMA && PM
select ACPI
select PCI
select ACPI_NUMA
```

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