Subject: No module sata_nv found
Posted by cahya_s on Tue, 17 Jan 2006 15:30:27 GMT
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Hi ..

I just install ovzkernel, but get some problems with sata_nv module.

```
# rpm -ihv ovzkernel-2.6.8-022stab061.1.x86_64.rpm
warning: ovzkernel-2.6.8-022stab061.1.x86_64.rpm: Header V3 DSA signature: NOKEY, key ID
a7a1d4b6
Preparing...                ########################################### [100%]
   1:ovzkernel              ########################################### [100%]
WARNING: No module sata_nv found for kernel 2.6.8-022stab061.1, continuing anyway
```

And this kernel cannot be booted.

Need help...

Thanks..

Subject: Re: No module sata_nv found
Posted by Ronny on Tue, 17 Jan 2006 15:42:31 GMT
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Hi

seems to be, that the Kernel doesn´t Support your SATA-Driver.

To-Do:

a) Load the Kernel Sources for 2.6.8
b) Install Patch from openvz
c) Load default .config file from openvz for the kernel
d) make menuconfig and choose the correct sata-driver, too
e) build your kernel
f) pray to god that it will work

Regards,
Ronny

Subject: Re: No module sata_nv found
Posted by kir on Tue, 17 Jan 2006 15:43:12 GMT
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"Warning" message from mkinitrd is just that -- a warning telling that there is no module sata_nv. Indeed in openvz kernel there is no such module, since it is compiled into kernel.

Still, it is strange that it is not booting. Can you please post or attach the output from the following comands here so we can investigate the case?

lspci
lspci -n
dmesg from a kernel you are able to boot

Subject: Re: No module sata_nv found
Posted by cahya_s on Tue, 17 Jan 2006 15:53:30 GMT
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Sure ...

lspci
00:00.0 Memory controller: nVidia Corporation CK804 Memory Controller (rev a3)
00:01.0 ISA bridge: nVidia Corporation: Unknown device 0050 (rev a3)
00:01.1 SMBus: nVidia Corporation CK804 SMBus (rev a2)
00:02.0 USB Controller: nVidia Corporation CK804 USB Controller (rev a2)
00:02.1 USB Controller: nVidia Corporation CK804 USB Controller (rev a3)
00:04.0 Multimedia audio controller: nVidia Corporation CK804 AC'97 Audio Controller (rev a2)
00:06.0 IDE interface: nVidia Corporation CK804 IDE (rev f2)
00:07.0 IDE interface: nVidia Corporation CK804 Serial ATA Controller (rev f3)
00:08.0 IDE interface: nVidia Corporation CK804 Serial ATA Controller (rev f3)
00:09.0 PCI bridge: nVidia Corporation CK804 PCI Bridge (rev a2)
00:0b.0 PCI bridge: nVidia Corporation CK804 PCIE Bridge (rev a3)
00:0c.0 PCI bridge: nVidia Corporation CK804 PCIE Bridge (rev a3)
00:0d.0 PCI bridge: nVidia Corporation CK804 PCIE Bridge (rev a3)
00:0e.0 PCI bridge: nVidia Corporation CK804 PCIE Bridge (rev a3)
00:18.0 Host bridge: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] HyperTransport Technology Configuration
00:18.1 Host bridge: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] Address Map
00:18.2 Host bridge: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] DRAM Controller
00:18.3 Host bridge: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] Miscellaneous Control
01:00.0 VGA compatible controller: ATI Technologies Inc RV370 5B60 [Radeon X300 (PCIE)]
01:00.1 Display controller: ATI Technologies Inc: Unknown device 5b70
05:07.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL-8169 Gigabit Ethernet (rev 10)

lspci -n
00:00.0 Class 0580: 10de:005e (rev a3)
00:01.0 Class 0601: 10de:0050 (rev a3)
00:01.1 Class 0c05: 10de:0052 (rev a2)
00:02.0 Class 0c03: 10de:005a (rev a2)
00:02.1 Class 0c03: 10de:005b (rev a3)

00:04.0 Class 0401: 10de:0059 (rev a2)
00:06.0 Class 0101: 10de:0053 (rev f2)
00:07.0 Class 0101: 10de:0054 (rev f3)
00:08.0 Class 0101: 10de:0055 (rev f3)
00:09.0 Class 0604: 10de:005c (rev a2)
00:0b.0 Class 0604: 10de:005d (rev a3)
00:0c.0 Class 0604: 10de:005d (rev a3)
00:0d.0 Class 0604: 10de:005d (rev a3)
00:0e.0 Class 0604: 10de:005d (rev a3)
00:18.0 Class 0600: 1022:1100
00:18.1 Class 0600: 1022:1101
00:18.2 Class 0600: 1022:1102
00:18.3 Class 0600: 1022:1103
01:00.0 Class 0300: 1002:5b60
01:00.1 Class 0380: 1002:5b70
05:07.0 Class 0200: 10ec:8169 (rev 10)

And then? Can I some how include the module during rpm installation?

I don't like to build my own kernel ..
This should be my last try after I tried everything else.

Subject: Re: No module sata_nv found
Posted by kir on Tue, 17 Jan 2006 16:00:31 GMT
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It looks like your SATA controller is indeed supported by OpenVZ kernel. So the reason it can not boot is probably different.

What exactly it tells you when it's not able to boot?

Can you also attach dmesg output from the kernel you are able to boot?

Subject: Re: No module sata_nv found
Posted by cahya_s on Tue, 17 Jan 2006 16:18:02 GMT
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Thanks Kir.

I sent you dmesg output file to your e-mail.
When it's not booting, it says:

Kernel panic: PCI-DMA: High addresses but no IOMMU.

Cahya

Subject: Re: No module sata_nv found
Posted by cahya_s on Wed, 18 Jan 2006 08:48:42 GMT
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Can anybody tell me how to enable IOMMU?
I'm using Asus A8N-E with BIOS Revision 1008. Unfortunately I cannot find anything about IOMMU on the BIOS setup.

I found out even on the running OS there is a warning regarding enabling IOMMU.
From dmesg:

...
Your BIOS doesn't leave a aperture memory hole
Please enable the IOMMU option in the BIOS setup
Putting aperture at c0000000-c3ffffff
....

Thanks.

Subject: Re: No module sata_nv found
Posted by vaverin on Wed, 18 Jan 2006 10:33:23 GMT
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Hi,

I've seen the such sympthomps on 2.4 x86_64 kernels instaleld on Intel EMT64 CPU. ia32e kernel has resolved this issue.

However this is 2.6 kernel... I'll investigate this issue.

Thank you,
Vasily Averin

Subject: Re: No module sata_nv found
Posted by cahya_s on Wed, 18 Jan 2006 12:20:55 GMT
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Well, I'm now using 32bit OS on 64 bit Processor. It looks like that everything goes well right now.

But this should be only temporary solution. And somehow I'm not very satisfied.
I really want to use 64 bit OS on 64 bit processor.

Subject: Re: No module sata_nv found
Posted by vaverin on Wed, 18 Jan 2006 12:34:31 GMT
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Hello Cahya,

I've looked at google and found that such panics happened even on the 2.6.14-rc kernels.
However for the investigation I need the full bootlog from our 64-bit kernel. There is only one way to get it: to attach the serial console (i mean simple null-modem serial cable) and dump the boot messages on the another node.
I would like to know, have you such possibility?

thank you,
Vasily Averin

Subject: Re: No module sata_nv found
Posted by cahya_s on Wed, 18 Jan 2006 12:43:04 GMT
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Hello Vasily,

unfortunately not. I had several PCs here, but all of them were pre-configured from the company's admin. The only PC I have full access is the one I want to install the OpenVZ.

Anyway, I'm now trying to install x86_64 OS and install the OpenVZ kernel again.

BTW, thanks for your quick answer.

Cahya

Subject: Re: No module sata_nv found
Posted by vaverin on Wed, 18 Jan 2006 12:49:06 GMT
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try to add " iommu=soft" into kernel commandline,
if it does not help, try to add "iommu=noagp".

Subject: Re: No module sata_nv found
Posted by cahya_s on Wed, 18 Jan 2006 13:27:50 GMT
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In case iommu=soft:

PC hang at boot-up with error:

Bringing up interface eth0: Kernel panic: map_single: could not allocate software IO TLB (1600 bytes)
In interrupt handler - not syncing

In case of iommu=noagp:

Kernel panic: PCI-DMA: high address but no IOMMU.
Also the same result as w/o kernel command.

I read on the other forum that someone had the same problem with IOMMU. The solution was to set IOMMU_DEBUG to yes. Do you know how to do that?
Or can we somehow disable IOMMU?

Quote:
[0.000000] Checking aperture...
[0.000000] CPU 0: aperture @ 4000000 size 32 MB
[0.000000] Aperture from northbridge cpu 0 too small (32 MB)
[0.000000] No AGP bridge found
...

[47.737770] PCI-DMA: Disabling IOMMU.

Subject: Re: No module sata_nv found
Posted by vaverin on Wed, 18 Jan 2006 13:41:20 GMT
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cahya_s wrote on Wed, 18 January 2006 16:27
I read on the other forum that someone had the same problem with IOMMU. The solution was to set IOMMU_DEBUG to yes. Do you know how to do that?
Or can we somehow disable IOMMU?

As far as I understand the problem is that IOMMU is disabled already and I would like to understand the cause of this. Therefore I would like to see the full bootlogs.

I suspect you can boot the kernel with "mem=3G" in commandline

Thank you,
Vasily Averin

Subject: Re: No module sata_nv found
Posted by cahya_s on Wed, 18 Jan 2006 13:59:44 GMT
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You're right. It works now.
Could you gimme short explanation about this?
I'll let you know if the VPS can be installed too.

Thanks.

Subject: Re: No module sata_nv found
Posted by vaverin on Wed, 18 Jan 2006 14:17:57 GMT
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cahya_s wrote on Wed, 18 January 2006 16:59You're right. It works now.
Could you gimme short explanation about this?
I'll let you know if the VPS can be installed too.

Thanks.

kernel panics when tried to access to the high memory area. I believe "high" mean that physical address is more than 4 Gb (32-bit). To handle these addresses kernel should use IOMMU, but it is disabled.

If we restrict the memory, we will not requiere an access to the high memory, will not use IOMMU and will not panics

Could you please send me via pm /var/log/dmesg file from our kernel.

Thank you,
Vasily Averin

Subject: Re: No module sata_nv found
Posted by cahya_s on Wed, 18 Jan 2006 14:29:33 GMT
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I got it now.
dmesg file should be in your PM now ..
Thanks.
Cahya

Subject: Re: No module sata_nv found
Posted by cahya_s on Wed, 18 Jan 2006 15:05:17 GMT
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The system is working, but after about 1 hour working it hangs again. Any suggestion??

Subject: Re: No module sata_nv found
Posted by vaverin on Wed, 18 Jan 2006 15:46:22 GMT
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About latest hang:
we would like to see the kernel error messages.

About kernel boot issue:
could you please confirm that the following messages present at the middle of the booting?

PCI-DMA: More than 4GB of RAM and no IOMMU
PCI-DMA: 32bit PCI IO may malfunction.

Thank you,
Vasily Averin

Subject: Re: No module sata_nv found
Posted by cahya_s on Wed, 18 Jan 2006 15:50:17 GMT
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Yes ...

There is such kind of message.

Subject: Re: No module sata_nv found
Posted by vaverin on Thu, 19 Jan 2006 08:13:18 GMT
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Andi Kleen suggest to use "pci=nommconf" as workaround
http://bugzilla.kernel.org/show_bug.cgi?id=5343

Subject: Re: No module sata_nv found
Posted by cahya_s on Thu, 19 Jan 2006 09:09:59 GMT
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Due to time pressure I am forced to use 32-bit OS right now. It works fine with Fedora Core 4 i386. So I cannot test your suggestion at this time. I'm sorry about it.

As soon as I had chance I will continue the experiment again.

Thanks.
Cahya