
Subject: ***SOLVED*** development kernel can not boot
Posted by [attackghost](#) on Wed, 21 Jun 2006 07:15:42 GMT
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I have installed the development kernel 2.6.16-026test014.4 to experience the live Migration Feature. But it can not boot . And the stable kernel 2.6.8-022stab077.1 works well on the same machine.
I'm very interested in live Migration and expect to make a experiment.
Thanks!

Subject: Re: development kernel can not boot
Posted by [Vasily Tarasov](#) on Wed, 21 Jun 2006 07:24:55 GMT
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What does kernel say when it is not booting?

Subject: Re: development kernel can not boot
Posted by [attackghost](#) on Wed, 21 Jun 2006 08:00:00 GMT
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Here is the information the kernel shows:

```
.....  
Creating root device  
mkrootdev: label / not found  
Mounting root filesystem  
mount: error 2 mounting ext3  
mount: error 2 mounting none  
Switching to new root  
switchroot: mount failed: 22  
umount /initrd/dev failed: 2  
Kernel panic - not syncing: Attempted to kill init!
```

Subject: Re: development kernel can not boot
Posted by [Vasily Tarasov](#) on Wed, 21 Jun 2006 08:31:09 GMT
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Well, the problem is in initrd image.
Have you installed your kernel from RPM or compiled it your self?
If you have compiled it yourself, what config-file have you used?
What distribution do you use?

Thanks.

Subject: Re: development kernel can not boot
Posted by [attackghost](#) on Thu, 22 Jun 2006 01:40:43 GMT
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I installed my kernel from RPM.
The distribution is ovzkernel-smp-2.6.16-026test014.4.i686.rpm.
Thanks.

Subject: Re: development kernel can not boot
Posted by [Vasily Tarasov](#) on Thu, 22 Jun 2006 06:42:32 GMT
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On what device your root partion resides?
Please, send "lspci" and "lspci -n" output here.

Subject: Re: development kernel can not boot
Posted by [attackghost](#) on Fri, 23 Jun 2006 01:54:09 GMT
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Command "lcpci -n" not found. Is it "lspci -n"?
Thanks.

```
[root@node8 ~]# lspci
00:00.0 Host bridge: ServerWorks GCNB-LE Host Bridge (rev 32)
00:00.1 Host bridge: ServerWorks GCNB-LE Host Bridge
00:08.0 VGA compatible controller: ATI Technologies Inc Rage XL (rev 27)
00:0f.0 ISA bridge: ServerWorks CSB6 South Bridge (rev a0)
00:0f.1 IDE interface: ServerWorks CSB6 RAID/IDE Controller (rev a0)
00:0f.2 USB Controller: ServerWorks CSB6 OHCI USB Controller (rev 05)
00:0f.3 Host bridge: ServerWorks GCLE-2 Host Bridge
00:10.0 Host bridge: ServerWorks CIOB-X2 PCI-X I/O Bridge (rev 05)
00:10.2 Host bridge: ServerWorks CIOB-X2 PCI-X I/O Bridge (rev 05)
01:02.0 PCI bridge: Mellanox Technologies MT23108 PCI Bridge (rev a1)
02:00.0 InfiniBand: Mellanox Technologies MT23108 InfiniHost (rev a1)
03:04.0 SCSI storage controller: LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual
Ultra320 SCSI (rev 07)
03:05.0 Ethernet controller: Intel Corp. 82540EM Gigabit Ethernet Controller (rev 02)
[root@node8 ~]# lcpci -n
-bash: lcpci: command not found
[root@node8 ~]# lspci -n
00:00.0 Class 0600: 1166:0017 (rev 32)
00:00.1 Class 0600: 1166:0017
00:08.0 Class 0300: 1002:4752 (rev 27)
00:0f.0 Class 0601: 1166:0203 (rev a0)
00:0f.1 Class 0101: 1166:0213 (rev a0)
00:0f.2 Class 0c03: 1166:0221 (rev 05)
```

00:0f.3 Class 0600: 1166:0227
00:10.0 Class 0600: 1166:0101 (rev 05)
00:10.2 Class 0600: 1166:0101 (rev 05)
01:02.0 Class 0604: 15b3:5a46 (rev a1)
02:00.0 Class 0c06: 15b3:5a44 (rev a1)
03:04.0 Class 0100: 1000:0030 (rev 07)
03:05.0 Class 0200: 8086:100e (rev 02)

Subject: Re: development kernel can not boot
Posted by [Vasily Tarasov](#) on Fri, 23 Jun 2006 06:08:34 GMT
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Driver for 53c1030 is in both kernels: 2.6.8, 2.6.16...

Well, please, can you send here initrd images of both kernels:

`initrd-2.6.16-026test014.4.img`

`initrd-2.6.8-022stab077.1.img`

And logs during boot 2.6.8-022stab077.1 kernel and 2.6.16-026test014.4 kernel, if possible.

Thank you!

Subject: Re: development kernel can not boot
Posted by [attackghost](#) on Fri, 23 Jun 2006 13:35:19 GMT
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ok.Here they are.

File Attachments

- 1) [initrd-2.6.8-022stab077.1-smp.img](#), downloaded 295 times
 - 2) [initrd-2.6.16-026test014.4-smp.img](#), downloaded 280 times
 - 3) [boot2.6.8-022stab077.1 kernel.log](#), downloaded 223 times
 - 4) [boot2.6.16-026test014.4.log](#), downloaded 274 times
-

Subject: Re: development kernel can not boot
Posted by [Vasily Tarasov](#) on Tue, 27 Jun 2006 10:52:46 GMT
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Hello, sorry for delay.

I've investigated your initrd images.

This is from init script from `initrd-2.6.16-026test014.4-smp.img`:

```
/sbin/udevstart
```

```
echo -n "/sbin/hotplug" > /proc/sys/kernel/hotplug
```

```
echo "Loading mptbase.ko module"
insmod /lib/mptbase.ko
echo "Loading mptscsih.ko module"
insmod /lib/mptscsih.ko
/sbin/udevstart
```

There is these files on image:

```
$ ls -l image/lib/mptbase.ko
-rw-r--r-- 1 vass users 57248 Jun 27 13:27 ./lib/mptbase.ko
vass@dhcp0-138 $ ls -l image/lib/mptscsih.ko
-rw-r--r-- 1 vass users 39856 Jun 27 13:27 ./lib/mptscsih.ko
vass@dhcp0-138 $
```

But sizes are different from those modules, that go with openvz :

```
$ ls -l /lib/modules/2.6.16-026test014.4/kernel/drivers/message/fusion/mptbase.ko
-rwxr--r-- 1 vass users 56392 Jun 7 17:18
./lib/modules/2.6.16-026test014.4/kernel/drivers/message/fusion/mptbase.ko
$ ls -l /lib/modules/2.6.16-026test014.4/kernel/drivers/message/fusion/mptscsih.ko
-rwxr--r-- 1 vass users 38808 Jun 7 17:18
./lib/modules/2.6.16-026test014.4/kernel/drivers/message/fusion/mptscsih.ko
```

Thus there are wrong modules on initrd!

Also support of your device resides in module: mptspi.ko. But there is no this module on initrd image and in init script.

Conclusion: initrd image is created by mkinitrd script of your distribution. And it works not properly with our kernel.

Solution: You can create your initrd image manually.

Please, tell me your distribution? I'll try to check it and may be it's OpenVZ bug.

Subject: Re: development kernel can not boot
Posted by [attackghost](#) on Wed, 28 Jun 2006 05:14:56 GMT
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My distribution is RedHat EL 4 (2.6.9-5.ELsmp).
Thanks!

Subject: Re: development kernel can not boot
Posted by [Stef](#) on Wed, 28 Jun 2006 11:30:05 GMT
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Hi,

we have the same kernel panic problem with the kernels ovzkernel-smp-2.6.16-026test014.4.i686 and ovzkernel-smp-2.6.16-026test012.1.i686, both installed via rpm. We also build a testing kernel on our own, but same effect, kernel panic because of the initrd problem. Our host OS is CentOS 4.3. Hope to read about a solution soon...

Greetings
Stef

Subject: Re: development kernel can not boot
Posted by [Vasily Tarasov](#) on Wed, 28 Jun 2006 11:34:14 GMT
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lspci and lspci -n output, please.

Subject: Re: development kernel can not boot
Posted by [Stef](#) on Wed, 28 Jun 2006 11:48:20 GMT
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Sorry i forgot...

```
[root@wevhl001 ~]# lspci
00:00.0 Host bridge: Intel Corporation E7520 Memory Controller Hub (rev 09)
00:02.0 PCI bridge: Intel Corporation E7525/E7520/E7320 PCI Express Port A (rev 09)
00:04.0 PCI bridge: Intel Corporation E7525/E7520 PCI Express Port B (rev 09)
00:06.0 PCI bridge: Intel Corporation E7520 PCI Express Port C (rev 09)
00:1d.0 USB Controller: Intel Corporation 82801EB/ER (ICH5/ICH5R) USB UHCI Controller #1
(rev 02)
00:1d.1 USB Controller: Intel Corporation 82801EB/ER (ICH5/ICH5R) USB UHCI Controller #2
(rev 02)
00:1d.7 USB Controller: Intel Corporation 82801EB/ER (ICH5/ICH5R) USB2 EHCI Controller (rev
02)
00:1e.0 PCI bridge: Intel Corporation 82801 PCI Bridge (rev c2)
00:1f.0 ISA bridge: Intel Corporation 82801EB/ER (ICH5/ICH5R) LPC Interface Bridge (rev 02)
03:00.0 PCI bridge: Intel Corporation 6700PXH PCI Express-to-PCI Bridge A (rev 09)
03:00.1 PIC: Intel Corporation 6700/6702PXH I/OxAPIC Interrupt Controller A (rev 09)
03:00.2 PCI bridge: Intel Corporation 6700PXH PCI Express-to-PCI Bridge B (rev 09)
03:00.3 PIC: Intel Corporation 6700PXH I/OxAPIC Interrupt Controller B (rev 09)
04:04.0 SCSI storage controller: LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual
Ultra320 SCSI (rev 08)
05:04.0 Ethernet controller: Intel Corporation 82546GB Gigabit Ethernet Controller (rev 03)
05:04.1 Ethernet controller: Intel Corporation 82546GB Gigabit Ethernet Controller (rev 03)
```

06:0d.0 VGA compatible controller: ATI Technologies Inc Radeon RV100 QY [Radeon 7000/VE]

```
[root@wevhl001 ~]# lspci -n
00:00.0 Class 0600: 8086:3590 (rev 09)
00:02.0 Class 0604: 8086:3595 (rev 09)
00:04.0 Class 0604: 8086:3597 (rev 09)
00:06.0 Class 0604: 8086:3599 (rev 09)
00:1d.0 Class 0c03: 8086:24d2 (rev 02)
00:1d.1 Class 0c03: 8086:24d4 (rev 02)
00:1d.7 Class 0c03: 8086:24dd (rev 02)
00:1e.0 Class 0604: 8086:244e (rev c2)
00:1f.0 Class 0601: 8086:24d0 (rev 02)
03:00.0 Class 0604: 8086:0329 (rev 09)
03:00.1 Class 0800: 8086:0326 (rev 09)
03:00.2 Class 0604: 8086:032a (rev 09)
03:00.3 Class 0800: 8086:0327 (rev 09)
04:04.0 Class 0100: 1000:0030 (rev 08)
05:04.0 Class 0200: 8086:107b (rev 03)
05:04.1 Class 0200: 8086:107b (rev 03)
06:0d.0 Class 0300: 1002:5159
```

Do you need our initrd images too?

Thanks!
Stef

Subject: Re: development kernel can not boot
Posted by [Vasily Tarasov](#) on Wed, 28 Jun 2006 11:54:53 GMT
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No, thanks!
You have absolutely the same hardware => the same problem.

You can try to modify your initrd image manually:
http://wiki.openvz.org/Modifying_initrd_image

Or give me an access to then node and I'll try to fix it.

Subject: Re: development kernel can not boot
Posted by [Stef](#) on Wed, 28 Jun 2006 12:27:13 GMT
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Thanks for the info, we are trying to fix it by now.

Stef

Subject: Re: development kernel can not boot
Posted by [niggo](#) on Thu, 29 Jun 2006 10:08:03 GMT
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Hi,

I'm Stef's co-worker, and we just succeeded in booting the dev-kernel on our node.

Thanks, vass, the wiki-article pointed us into the right direction.
We had to modify the parameters of the cpio-command, as our node has more than 65536 inodes (-H newc).

Finally I compiled the required modules directly into the kernel and removed the mpt*-modules from the initrd-image.

Regards from Germany,

niggo
