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Subject: \*SOLVED\* Error 13: Invalid executable or unsupported format ???

Posted by [arnaudsj](#) on Fri, 08 Dec 2006 16:10:57 GMT

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Hi,

I am running Centos 4.4 x64 and I thought I would try out to get OpenVZ running on this Opteron box, so I installed via YUM the latest stable kernel (2.6.9-023stab032.1-smp).

I modified the grub config and attempted to boot and I got the following error message:

Error 13: Invalid executable or unsupported format ???

Here is what I have in Grub:

```
title OpenVZ (2.6.9 x64 SMP)
    root (hd0,0)
    kernel /vmlinuz-2.6.9-023stab032.1-smp ro root=/dev/Linux/CentOS console=tty1
console=ttyS1,9600
    initrd /initrd-2.6.9-023stab032.1-smp.img
    boot
```

Any ideas? My main setup uses RAID 0 with LVM on top. My boot partition though is a standard ext3 100Mo partition on the sda.

Thank you for your guidance!

Sébastien

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Subject: Re: Error 13: Invalid executable or unsupported format ???

Posted by [dim](#) on Fri, 08 Dec 2006 16:34:40 GMT

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Did you install x86\_64 kernel rpm?

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Subject: Re: Error 13: Invalid executable or unsupported format ???

Posted by [arnaudsj](#) on Fri, 08 Dec 2006 16:41:05 GMT

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Yes!

ovzkernel-smp.x86_64	2.6.9-023stab032.1	installed
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Matched from:

ovzkernel-smp

This package includes a SMP version of the OpenVZ kernel. Install the ovzkernel-smp package if your machine uses two or more CPUs or CPUs with hyperthreading technology.

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Subject: Re: Error 13: Invalid executable or unsupported format ???

Posted by [dim](#) on Fri, 08 Dec 2006 16:51:34 GMT

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Do you have 32bit environment then?

`uname -a` with CentOS kernel, please.

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Subject: Re: Error 13: Invalid executable or unsupported format ???

Posted by [arnaudsj](#) on Fri, 08 Dec 2006 16:55:13 GMT

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This is what I have runing:

```
# uname -a
```

```
Linux andromeda 2.6.9-42.0.3.plus.c4smp #1 SMP Fri Oct 6 11:42:04 CDT 2006 x86_64 x86_64  
x86_64 GNU/Linux
```

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Subject: Re: Error 13: Invalid executable or unsupported format ???

Posted by [dim](#) on Fri, 08 Dec 2006 17:02:47 GMT

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1) `file /boot/vmlinuz-2.6.9-023stab032.1-smp` output

2) full /etc/grub.conf content

3) `file /boot/vmlinuz-2.6.9-42.0.3.plus.c4smp` output

Am I right, grub prints error when it is trying to load kernel itself?

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Subject: Re: Error 13: Invalid executable or unsupported format ???

Posted by [arnaudsj](#) on Fri, 08 Dec 2006 17:17:43 GMT

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I think you are on to something:

```
# file /boot/vmlinuz-2.6.9-023stab032.1-smp
```

/boot/vmlinuz-2.6.9-023stab032.1-smp: ELF 64-bit LSB executable, AMD x86-64, version 1 (SYSV), statically linked, not stripped

# file /boot/vmlinuz-2.6.9-42.0.3.plus.c4smp  
/boot/vmlinuz-2.6.9-42.0.3.plus.c4smp: x86 boot sector

Any other of my kernels listed in grub.conf below are showing this property (x86 boot sector)

```
# grub.conf generated by anaconda
#
# Note that you do not have to rerun grub after making changes to this file
# NOTICE: You have a /boot partition. This means that
#          all kernel and initrd paths are relative to /boot/, eg.
#          root (hd0,0)
#          kernel /vmlinuz-version ro root=/dev/Linux/CentOS
#          initrd /initrd-version.img
#boot=/dev/sda
default=3
timeout=5
splashimage=(hd0,0)/grub/splash.xpm.gz
hiddenmenu
serial --unit=0 --speed=9600
terminal --timeout=2 serial console

title CentOS (2.6.9-023stab032.1-smp)
    root (hd0,0)
    kernel /vmlinuz-2.6.9-023stab032.1-smp ro root=/dev/Linux/CentOS clock=pmtmr noapic
    nolapic console=tty1 console=ttyS1,9600
    initrd /initrd-2.6.9-023stab032.1-smp.img

title CentOS (2.6.9-42.0.3.plus.c4)
    root (hd0,0)
    kernel /vmlinuz-2.6.9-42.0.3.plus.c4 ro root=/dev/Linux/CentOS clock=pmtmr noapic nolapic
    console=tty1 console=ttyS1,9600
    initrd /initrd-2.6.9-42.0.3.plus.c4.img

title CentOS (2.6.9-42.0.3.EL)
    root (hd0,0)
    kernel /vmlinuz-2.6.9-42.0.3.EL ro root=/dev/Linux/CentOS clock=pmtmr noapic nolapic
    console=tty1 console=ttyS1,9600
    initrd /initrd-2.6.9-42.0.3.EL.img

title CentOS (2.6.9-42.0.3.plus.c4smp)
    root (hd0,0)
    kernel /vmlinuz-2.6.9-42.0.3.plus.c4smp ro root=/dev/Linux/CentOS clock=pmtmr noapic
```

```
nolapic console=tty1 console=ttyS1,9600  
initrd /initrd-2.6.9-42.0.3.plus.c4smp.img
```

```
title CentOS (2.6.9-42.0.2.plus.c4)  
root (hd0,0)  
kernel /vmlinuz-2.6.9-42.0.2.plus.c4 ro root=/dev/Linux/CentOS clock=pmtmr noapic nolapic  
console=tty1 console=ttyS1,9600  
initrd /initrd-2.6.9-42.0.2.plus.c4.img
```

```
title CentOS (2.6.9-42.0.2.plus.c4smp)  
root (hd0,0)  
kernel /vmlinuz-2.6.9-42.0.2.plus.c4smp ro root=/dev/Linux/CentOS clock=pmtmr noapic  
nolapic console=tty1 console=ttyS1,9600  
initrd /initrd-2.6.9-42.0.2.plus.c4smp.img
```

```
title CentOS (2.6.9-42.0.2.ELsmp)  
root (hd0,0)  
kernel /vmlinuz-2.6.9-42.0.2.ELsmp ro root=/dev/Linux/CentOS clock=pmtmr noapic nolapic  
console=tty1 console=ttyS1,9600  
initrd /initrd-2.6.9-42.0.2.ELsmp.img
```

```
title CentOS (2.6.9-42.0.2.EL)  
root (hd0,0)  
kernel /vmlinuz-2.6.9-42.0.2.EL ro root=/dev/Linux/CentOS clock=pmtmr noapic nolapic  
console=tty1 console=ttyS1,9600  
initrd /initrd-2.6.9-42.0.2.EL.img
```

```
title CentOS (2.6.9-34.107.plus.c4smp)  
root (hd0,0)  
kernel /vmlinuz-2.6.9-34.107.plus.c4smp ro root=/dev/Linux/CentOS clock=pmtmr noapic  
nolapic console=tty1 console=ttyS1,9600  
initrd /initrd-2.6.9-34.107.plus.c4smp.img
```

```
title Gentoo Linux (2.6.14-r5 lvm2)  
root (hd0,0)  
kernel /kernel-genkernel-x86_64-2.6.14-gentoo-r5 udev dolvm2 root=/dev/ram0  
real_root=/dev/Linux/Gentoo init=/linuxrc lvmraid=/dev/md0  
video=vesafb:ywrap,mtrr,1024x768-16@85 splash=silent,theme:emergence  
initrd /initramfs-genkernel-x86_64-2.6.14-gentoo-r5
```

```
title Windows XP (32bit)  
rootnoverify (hd0,2)  
chainloader +1
```

Also for some reason menu.lst is showing some quite different things... Not sure what happened (I wonder if it because I had installed Ubuntu a few months ago and it overwrote the grub config

```

from Centos...
# cat /boot/grub/menu.lst

# menu.lst - See: grub(8), info grub, update-grub(8)
#      grub-install(8), grub-floppy(8),
#      grub-md5-crypt, /usr/share/doc/grub
#      and /usr/share/doc/grub-doc/.

## default num
# Set the default entry to the entry number NUM. Numbering starts from 0, and
# the entry number 0 is the default if the command is not used.
#
# You can specify 'saved' instead of a number. In this case, the default entry
# is the entry saved with the command 'savedefault'.
# WARNING: If you are using dmraid do not change this entry to 'saved' or your
# array will desync and will not let you boot your system.
default      0

## timeout sec
# Set a timeout, in SEC seconds, before automatically booting the default entry
# (normally the first entry defined).
timeout      10

## hiddenmenu
# Hides the menu by default (press ESC to see the menu)
#hiddenmenu

# Pretty colours
#color cyan/blue white/blue

## password ['--md5'] passwd
# If used in the first section of a menu file, disable all interactive editing
# control (menu entry editor and command-line) and entries protected by the
# command 'lock'
# e.g. password topsecret
#      password --md5 $1$gLhU0/$aW78kHK1QfV3P2b2znUoe/
# password topsecret

#
# examples
#
# title      Windows 95/98/NT/2000
# root       (hd0,0)
# makeactive
# chainloader +1
#
# title      Linux
# root       (hd0,1)

```

```

# kernel      /vmlinuz root=/dev/hda2 ro
#

#
# Put static boot stanzas before and/or after AUTOMAGIC KERNEL LIST

#### BEGIN AUTOMAGIC KERNELS LIST
## lines between the AUTOMAGIC KERNELS LIST markers will be modified
## by the debian update-grub script except for the default options below

## DO NOT UNCOMMENT THEM, Just edit them to your needs

## ## Start Default Options ##
## default kernel options
## default kernel options for automagic boot options
## If you want special options for specific kernels use kopt_x_y_z
## where x.y.z is kernel version. Minor versions can be omitted.
## e.g. kopt=root=/dev/hda1 ro
##      kopt_2_6_8=root=/dev/hdc1 ro
##      kopt_2_6_8_2_686=root=/dev/hdc2 ro
# kopt=root=/dev/sdb3 ro

## default grub root device
## e.g. groot=(hd0,0)
# groot=(hd0,0)

## should update-grub create alternative automagic boot options
## e.g. alternative=true
##      alternative=false
# alternative=true

## should update-grub lock alternative automagic boot options
## e.g. lockalternative=true
##      lockalternative=false
# lockalternative=false

## additional options to use with the default boot option, but not with the
## alternatives
## e.g. defoptions=vga=791 resume=/dev/hda5
# defoptions=quiet splash

## altopption boot targets option
## multiple altopptions lines are allowed
## e.g. altopptions=(extra menu suffix) extra boot options
##      altopptions=(recovery mode) single
# altopptions=(recovery mode) single

## controls how many kernels should be put into the menu.lst

```

```

## only counts the first occurrence of a kernel, not the
## alternative kernel options
## e.g. howmany=all
##    howmany=7
# howmany=all

## should update-grub create memtest86 boot option
## e.g. memtest86=true
##    memtest86=false
# memtest86=true

## should update-grub adjust the value of the default booted system
## can be true or false
# updatedefaultentry=false

## ## End Default Options ##
serial --unit=0 --speed=9600
terminal --timeout=2 serial console

splashimage=(hd0,0)/grub/splash.xpm.gz

title CentOS (2.6.9-42.0.3.plus.c4smp)
    root (hd0,0)
    kernel /vmlinuz-2.6.9-42.0.3.plus.c4smp ro root=/dev/Linux/CentOS clock=pmtmr noapic
    nolapic console=tty1 console=ttyS1,9600
    initrd /initrd-2.6.9-42.0.3.plus.c4smp.img
    savedefault
    boot

title OpenVZ (2.6.9 x64 SMP)
    root (hd0,0)
    kernel /vmlinuz-2.6.9-023stab032.1-smp ro root=/dev/Linux/CentOS clock=pmtmr noapic
    nolapic console=tty1 console=ttyS1,9600
    initrd /initrd-2.6.9-023stab032.1-smp.img
    boot

title CentOS new, kernel 2.6.9-42.0.2.ELsmp
    root (hd0,0)
    kernel /vmlinuz-2.6.9-42.0.2.ELsmp ro root=/dev/Linux/CentOS clock=pmtmr noapic nolapic
    console=tty1 console=ttyS1,9600
    initrd /initrd-2.6.9-42.0.2.ELsmp.img
    boot

title CentOS (2.6.9-34.107.plus.c4smp)
    root (hd0,0)

```

```
kernel /vmlinuz-2.6.9-34.107.plus.c4smp ro root=/dev/Linux/CentOS clock=pmtmr noapic nolapic
console=tty1 console=ttyS1,9600
initrd /initrd-2.6.9-34.107.plus.c4smp.img
boot
```

```
title      Ubuntu, kernel 2.6.15-26-amd64-generic
root      (hd0,0)
kernel    /vmlinuz-2.6.15-26-amd64-generic root=/dev/sdb3 ro quiet splash
initrd    /initrd.img-2.6.15-26-amd64-generic
boot
```

```
title      Ubuntu, kernel 2.6.15-26-amd64-generic (recovery mode)
root      (hd0,0)
kernel    /vmlinuz-2.6.15-26-amd64-generic root=/dev/sdb3 ro single
initrd    /initrd.img-2.6.15-26-amd64-generic
boot
```

```
title      CentOS, kernel 2.6.9-34.107.plus.c4smp
root      (hd0,0)
kernel    /vmlinuz-2.6.9-34.107.plus.c4smp root=/dev/sdb3 ro quiet splash
boot
```

```
title      CentOS, kernel 2.6.9-34.107.plus.c4smp (recovery mode)
root      (hd0,0)
kernel    /vmlinuz-2.6.9-34.107.plus.c4smp root=/dev/sdb3 ro single
boot
```

```
title      CentOS, kernel 2.6.9-34.ELsmp
root      (hd0,0)
kernel    /vmlinuz-2.6.9-34.ELsmp root=/dev/sdb3 ro quiet splash
boot
```

```
title      CentOS, kernel 2.6.9-34.ELsmp (recovery mode)
root      (hd0,0)
kernel    /vmlinuz-2.6.9-34.ELsmp root=/dev/sdb3 ro single
boot
```

```
title      CentOS, kernel 2.6.9-34.EL
root      (hd0,0)
kernel    /vmlinuz-2.6.9-34.EL root=/dev/sdb3 ro quiet splash
boot
```

```
title      CentOS, kernel 2.6.9-34.EL (recovery mode)
root      (hd0,0)
kernel    /vmlinuz-2.6.9-34.EL root=/dev/sdb3 ro single
boot
```

```
title      Ubuntu, memtest86+
```



```
root      (hd0,0)
kernel    /memtest86+.bin
boot
```

### END DEBIAN AUTOMAGIC KERNELS LIST

# This is a divider, added to separate the menu items below from the Debian  
# ones.

```
title      Other operating systems:
root
```

# This entry automatically added by the Debian installer for a non-linux OS

# on /dev/sda3

```
title      Windows NT/2000/XP (loader)
root       (hd0,2)
savedefault
makeactive
chainloader +1
```

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Subject: Re: Error 13: Invalid executable or unsupported format ???

Posted by [Andrey Mirkin](#) on Fri, 08 Dec 2006 19:42:37 GMT

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arnaudsj wrote on Fri, 08 December 2006 11:10Hi,

I am running Centos 4.4 x64 and I thought I would try out to get OpenVZ running on this Opteron box, so I installed via YUM the latest stable kernel (2.6.9-023stab032.1-smp).

I modified the grub config and attempted to boot and I got the following error message:

Error 13: Invalid executable or unsupported format ???

Here is what I have in Grub:

```
title OpenVZ (2.6.9 x64 SMP)
    root (hd0,0)
    kernel /vmlinuz-2.6.9-023stab032.1-smp ro root=/dev/Linux/CentOS console=tty1
console=ttyS1,9600
    initrd /initrd-2.6.9-023stab032.1-smp.img
    boot
```

Please change "kernel /vmlinuX-2.6.9-023stab032.1-smp ..." to "kernel  
/vmlinuZ-2.6.9-023stab032.1-smp ...".

Just one letter x to z.

Do you have vmlinuz-2.6.9-023stab032.1-smp in /boot directory?

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Subject: Re: Error 13: Invalid executable or unsupported format ???

Posted by [arnaudsj](#) on Fri, 08 Dec 2006 20:22:26 GMT

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Wow, that's scary - I have this in my boot directory:

```
-rw-r--r-- 1 root root 1408100 Dec 5 23:30 initrd-2.6.9-023stab032.1-smp.img
-rw-r--r-- 1 root root 1273754 Oct 19 17:14 System.map-2.6.9-023stab032.1-smp
-rwxr-xr-x 1 root root 10529921 Oct 19 17:16 vmlinux-2.6.9-023stab032.1-smp
-rw-r--r-- 1 root root 2637165 Oct 19 17:14 vmlinuz-2.6.9-023stab032.1-smp
```

I have no idea how this vmlinux got in there...

Oh, well I updated the grub config and will try to reboot later tonight and will let you know!

Thanks!

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Subject: Re: Error 13: Invalid executable or unsupported format ??? (solved)

Posted by [arnaudsj](#) on Sat, 09 Dec 2006 03:45:42 GMT

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It worked!

Thank you for your help identifying the issue. I still have no clue though how this other vmlinuX file got created on the boot partition and caused this...

Sorry, if I wasted anybody's time on a typo in the end

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