Subject: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by miroslawgon on Fri, 07 Apr 2006 19:33:09 GMT
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I have problem with LVM on CentOS 4.3 x86 with openvz 2.6.8-022stab072-smp

I can't create logial volume in lvm (I can create pv, vg)
I get error message (Clipboard.jpg)

In original distribution kernel everything works fine, a can create, format and mount lv.

I'm using HighPoint 2220 raid card, driver is loaded, system can see the drive (raid5 array). I am able to create, format and mount normal partitions on both kernels.

What is the problem?
Do I have change something in lvm config?

File Attachments
1) Clipboard.jpg, downloaded 600 times

Subject: Re: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by dev on Sat, 08 Apr 2006 18:39:01 GMT
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RedHat has broken LVM compatibility in RHEL4.3:
http://bugzilla.openvz.org/show_bug.cgi?id=120

Can you check, please, that coming soon 075 kernel with fixed bug mentioned above helps your issue?
http://download.openvz.org/~dev/075/

Subject: Re: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by miroslawgon on Mon, 10 Apr 2006 12:03:25 GMT
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I tried to use the 075 kernel but when I try modprobe highpoint raid card driver I get incompatible version error(the module compilation process works fine, I don't get error messages). I had the same
problem on 072 kernel, the solution is to build kernel form sources. For now I will wait for official release of 075 kernel.

Can you add HighPoint open source drivers to the kernel?

http://www.highpoint-tech.com/BIOS%20+%20Driver/rr2224/Linux
/rr222x-linux-src-1.03-060328-1734.tar.gz

Thanks for your help.

Subject: Re: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by dev on Mon, 10 Apr 2006 12:05:24 GMT
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does RHEL4 supports this hardware?

Subject: Re: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by miroslawgon on Mon, 10 Apr 2006 12:46:40 GMT
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I searched the RedHat compability list
http://bugzilla.redhat.com/hwcert/
and couldn't find any HighPoint devices.

The card isn't supported in RHEL

Subject: Re: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by dev on Mon, 10 Apr 2006 13:03:32 GMT
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Oh, god, this driver comes with binary only modules
Have you tried compiling it? Did it work?

Subject: Re: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by miroslawgon on Mon, 10 Apr 2006 20:46:11 GMT
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There are binary modules for RHEL, Fedora and SUSE

The binary modules worked fine, the only problem is that they are
for 2.8.9-22 kernel (I sue CentOS 4.3) they won't work with other kernels lile 2.8.9-34 (version compatibility error).

You can also download source code HPT Open Source driver (
http://www.highpoint-tech.com/BIOS%20+%20Driver/rr2224/Linux

/rr222x-linux-src-1.03-060328-1734.tar.gz)

On ovz kernel I can compile them, no errors during compilation, but I can't modprobe or insmod the module - version compatibility error.

The soulution is to compile ovz kernel form sources and then compile the module (modprobe works)

There is also option to patch the kernel

part of README file

```
 ###################################################################### ##################
3. Using the driver as a kernel patch
 ###################################################################### ##################

    You must have a full kernel source tree to use the driver as a patch.
    To patch a kernel source tree, run the command

      # cd rr222x-linux-src-1.xx/product/rr2220/linux/
      # make patchkernel KERNELDIR=<kernel-source-dir>

    For an unconfigured 2.6 kernel source tree, include/linux/version.h may
    not exist so you should add "KERNEL_VER=2.6" to the command:

      # make patchkernel KERNELDIR=<kernel-source-dir> KERNEL_VER=2.6

    Then you can configure the driver into kernel during the kernel
    configuration process (e.g. "make menuconfig"). It is listed under
    scsi low level drivers.

    Below is an example to make and install a kernel with the driver built-in:

      # cd /usr/src/linux-2.6.11
      # make menuconfig

      Select "Device Drivers --->" and press enter.
      Select "SCSI device support", then press 'Y' to make it built-in.
      Select "SCSI disk support" then press 'Y' to make it build-in.
      Select "SCSI low-level drivers --->" and press enter.
      Select "HighPoint RocketRAID 2220 support" and press 'Y'.
      Exit and save the kernel configuration.

      # make
      # make modules_install
      # make install

      Then you can reboot from the new kernel.
-------------------------------------------
```

Kernel (ovz) compiled without errors, but after reboot, during system boot kernel crashed, it wasn't kernel panic, it looked like assemble registry dump or something like that (I an not sure). The same kernel without hpt patch works fine.

Now my system is running ovz kernel + hpt raid module. I'm just waiting for official release of 075 kernel to solve LVM problem.

Link to the product page:
http://www.highpoint-tech.com/USA/bios_rr2220.htm

Subject: Re: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by dev on Tue, 11 Apr 2006 07:53:16 GMT
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miroslawgon,

you can download 076 kernel and its sources from here:
http://download.openvz.org/~dev/076/
it will be released tomorrow.

About driver, I'm not sure, we will include it to official builds, as binary drivers are always a bit of pain and require correct ABI settings (regparams etc.). Maybe a bit later.

Subject: Re: LVM problem - CentOS 4.3 x86 - openvz 2.6.8-022stab072-smp
Posted by miroslawgon on Mon, 17 Apr 2006 10:12:31 GMT
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The 076 kernel solved all my problems with LVM, I can now create, resize and mount LV's.

There is only one problem:
After system reboot there are no LVM devices in /dev, system drops me to single user mode with message that's somethings wrong with hard drive and fsck can't read some sectors.

Solution to this problem:
edit /etc/lvm/lvm.conf

```
# Where do you want your volume groups to appear ?
dir = "/lvm"  <--- change this to some directory outside /dev

# An array of directories that contain the device nodes you wish
# to use with LVM2.
scan = [ "/lvm" ] <--- change this to some directory outside /dev
```

Reboot and everything works now.

Tip for users with HighPoint RR2220 RAID card:

If you use module drivers and LVM
edit the /etc/rc.sysinit

add

echo "Loading HPT RR2220 module ..."
modprobe hptmv6

before LVM section (# LVM2 initialization)

dev, thanks for your help!