Subject: *SOLVED* HP DL 145 slooooooow with openvz kernels
Posted by ugob on Wed, 23 May 2007 14:40:23 GMT
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Hi,

We installed openvz on an HP DL 145 and whenever we use an openvz kernel, a simple I/O operation is about 10 times slower than using the centos stock kernel.

[root@vz1 ~]# date;vzdump --restore /home/ugob/vzdump-104.tgz 105;date
Wed May 23 10:24:13 EDT 2007
extracting archive '/home/ugob/vzdump-104.tgz'
extracting configuration to '/etc/vz/conf/105.conf'
restore successful
Wed May 23 10:35:54 EDT 2007

Normally, this takes less than 1 minute on a stock kernel. I also tested on a less powerfull machine, and it also runs in about 1 minute.

Kernels tried:

2.6.18-8.el5.028stab031.1 #1 SMP Sat Apr 28 00:38:07 MSD 2007 i686 athlon i386 GNU/Linux

ovzkernel-PAE.i686

Also, the system remains slow after this operation... It looks like processses remain hung, like this one:
root 10809 0.0 0.0 1568 468 ? Ds 10:30 0:00 /usr/lib/sa/sadc -F -L 1 1 /var/log/sa/sa23

(it is now 10.39 and this command should take less than 1 sec to execute...)

Here is the output of lspci.

00:00.0 Memory controller: nVidia Corporation CK804 Memory Controller (rev a3)
00:01.0 ISA bridge: nVidia Corporation CK804 ISA Bridge (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)
00:06.0 IDE interface: nVidia Corporation CK804 IDE (rev a2)
00:08.0 IDE interface: nVidia Corporation CK804 Serial ATA Controller (rev a3)
00:09.0 PCI bridge: nVidia Corporation CK804 PCI Bridge (rev a2)
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
00:19.0 Host bridge: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] HyperTransport Technology Configuration
00:19.1 Host bridge: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] Address Map
00:19.2 Host bridge: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] DRAM Controller
00:19.3 Host bridge: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] Miscellaneous Control
01:05.0 VGA compatible controller: nVidia Corporation NV11 [GeForce2 MX/MX 400] (rev b2)
02:00.0 Ethernet controller: Broadcom Corporation NetXtreme BCM5721 Gigabit Ethernet PCI Express (rev 11)
03:00.0 Ethernet controller: Broadcom Corporation NetXtreme BCM5721 Gigabit Ethernet PCI Express (rev 11)
80:01.0 PCI bridge: Advanced Micro Devices [AMD] AMD-8132 PCI-X Bridge (rev 11)
80:01.1 PIC: Advanced Micro Devices [AMD] AMD-8132 PCI-X IOAPIC (rev 11)
80:02.0 PCI bridge: Advanced Micro Devices [AMD] AMD-8132 PCI-X Bridge (rev 11)
80:02.1 PIC: Advanced Micro Devices [AMD] AMD-8132 PCI-X IOAPIC (rev 11)
81:01.0 SCSI storage controller: LSI Logic / Symbios Logic SAS1068 PCI-X Fusion-MPT SAS

Any idea?

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by adobriyan on Fri, 25 May 2007 10:11:47 GMT
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> Normally, this takes less than 1 minute on a stock kernel.

What version of stock kernel, exactly?

> I also tested on a less powerfull machine, and it also runs in
> about 1 minute.

Do you mean, OpenVZ kernel on another box showed no degradation of
IO speeds?

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by adobriyan on Fri, 25 May 2007 10:19:51 GMT
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Better, post "dmesg" output from stock kernel that is fast, and
from OpenVZ kernel that is slow.

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by Vasily Tarasov on Fri, 25 May 2007 11:07:22 GMT
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It's very probably the affect of a bug in 031 kernel. This bug is fixed by
http://git.openvz.org/?p=linux-2.6.18-openvz;a=commit;h=c7fa
58b331d23c0796996dcab75c72053fafab5a

Without the pathc we observed some dramatic IO degradation also. Can you try it and inform us about effect?

Thank you,
Vasily.

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by ugob on Fri, 25 May 2007 11:25:55 GMT
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I'll post some dmesg a bit later, thanks.

How do I try the patch? Is there a beta rpm kernel available? I'd rather use an RPM than having to compile a kernel...

Thanks.

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by Vasily Tarasov on Fri, 25 May 2007 11:51:47 GMT
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You can download temporary verion with fix from
http://download.openvz.org/~vass/ovzkernel-2.6.18-8.1.3.el5. 028stab032.1.i686.rpm
But after release it's strongly recomended to update this kernel!

PLEASE, inform us about results! Thank you in advance,
Vasily.

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by ugob on Fri, 25 May 2007 12:10:32 GMT
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Wow, cool an RPM . Will give you feedback ASAP.

Thanks.

ugo

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by ugob on Fri, 25 May 2007 13:51:54 GMT
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It seems to have solved the problem:

[root@vz1 ~]# date;vzdump --restore /home/ugob/vzdump-104.tgz 105;date
Fri May 25 09:50:48 EDT 2007
extracting archive '/home/ugob/vzdump-104.tgz'
extracting configuration to '/etc/vz/conf/105.conf'
restore successful
Fri May 25 09:51:46 EDT 2007

When will a stable kernel with this patch be available?

How safe is it to run with this kernel?

Regards,

Ugo

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by Vasily Tarasov on Sat, 26 May 2007 12:10:50 GMT
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Thanks for the response!

Next rpm release will be available next week.

032 version is stable, I suggest you to upgrade till new kernel (after it appears) only because it's a bit more convenient for the support if users use officially released kernels. So this requirement is not strict.

Thank you!

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by ugob on Sat, 26 May 2007 17:09:10 GMT
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So you suggest we can use this kernel in production, but make sure we upgrade as soon as the official kernel is out, right?

Subject: Re: HP DL 145 slooooooow with openvz kernels
Posted by Vasily Tarasov on Sat, 26 May 2007 20:53:25 GMT
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Right!