Subject: Dell PowerEdge T105 optical drive
Posted by luisdev on Sat, 19 Jul 2008 13:31:13 GMT
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Hi!

PowerEdge T105 is a budget server from Dell apparently suitable for inexpensive virtual server setup.

However, there are some issues with its SATA optical drive. Apparently the sata_nv driver and a 4+ GB RAM are a bad match up.

I am trying to use ovzkernel in CentOS 5.2. Version 2.6.24 will make the system hang when the HAL service starts. Version 2.6.18 will boot, but will crash+reboot the system when trying to mount the CD drive (mount /dev/scd0 /mnt).

At some sites I have seen recommended to append "sata_nv.adma=0" to the kernel boot options to work around this issue, but it won't help in this case.

Before I try to build and test a custom 2.6.26, I was wondering if someone has any better advice.

Regards,

Luis

Subject: Re: Dell PowerEdge T105 optical drive
Posted by maratrus on Tue, 22 Jul 2008 11:47:07 GMT
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Hello,

1. Are you sure that total amount of RAM is really matter? Could you please, decrease the total amount of RAM for example by using "mem=value" in the kernel command line in appropriate bootloader configuration file.

2. Do you know the kernels where the combination of hardware/drivers you've described above works?

3. Could you please show "lspci" and "lspci -n" from HN.

Thank You!

Subject: Re: Dell PowerEdge T105 optical drive
Posted by luisdev on Tue, 22 Jul 2008 20:29:09 GMT

1. Yes. I tried mem=3G and it worked. Apparently you can even raise it to mem=4096M. There is more information on the issue here:

http://lkml.org/lkml/2008/1/10/163
https://bugzilla.redhat.com/show_bug.cgi?id=351451

It seems that there is a patch but either it is not effective or it didn't make it to 2.6.24.

What puzzles me is that RHEL5 is officially supported by Dell and I haven't been able to find any reference to this issue for that distro, only for CentOS, Ubuntu and Fedora. Either no one installs RHEL on this machine or RH has released a patched kernel and it hasn't made it to CentOS.

2. No, I don't, I guess when I have some spare time I will try some 2.6.25 or 2.6.26 or try to find if a patch has finally been released and try to backport it to 2.6.18 or 2.6.24.

3. Find the output of the commands you requested below. Thanks a lot for your answer.

[root@cluster0 ~]# lspci
00:00.0 Memory controller: nVidia Corporation CK804 Memory Controller (rev a4)
00:01.0 ISA bridge: nVidia Corporation CK804 ISA Bridge (rev f1)
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 a4)
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 f2)
00:0b.0 PCI bridge: nVidia Corporation CK804 PCIE Bridge (rev f3)
00:0c.0 PCI bridge: nVidia Corporation CK804 PCIE Bridge (rev f3)
00:0d.0 PCI bridge: nVidia Corporation CK804 PCIE Bridge (rev f3)
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
01:07.0 Ethernet controller: D-Link System Inc DGE-528T Gigabit Ethernet Adapter (rev 10)
01:08.0 VGA compatible controller: ATI Technologies Inc ES1000 (rev 02)
02:00.0 Ethernet controller: Broadcom Corporation NetXtreme BCM5722 Gigabit Ethernet PCI Express

[root@cluster0 ~]# lspci -n
00:00.0 0580: 10de:005e (rev a4)
00:01.0 0601: 10de:0051 (rev f1)
00:01.1 0c05: 10de:0052 (rev a2)
00:02.0 0c03: 10de:005a (rev a2)
00:02.1 0c03: 10de:005b (rev a4)

00:07.0 0101: 10de:0054 (rev f3)
00:08.0 0101: 10de:0055 (rev f3)
00:09.0 0604: 10de:005c (rev f2)
00:0b.0 0604: 10de:005d (rev f3)
00:0c.0 0604: 10de:005d (rev f3)
00:0d.0 0604: 10de:005d (rev f3)
00:0e.0 0604: 10de:005d (rev a3)
00:18.0 0600: 1022:1100
00:18.1 0600: 1022:1101
00:18.2 0600: 1022:1102
00:18.3 0600: 1022:1103
01:07.0 0200: 1186:4300 (rev 10)
01:08.0 0300: 1002:515e (rev 02)
02:00.0 0200: 14e4:165a

Subject: *SOLVED* Re: Dell PowerEdge T105 optical drive
Posted by luisdev on Fri, 25 Jul 2008 16:11:58 GMT
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Hi!

I applied this patch:

http://git.kernel.org/?p=linux/kernel/git/torvalds/linux-2.6
.git;a=commit;h=8959d300a79c1b70526cdf9e00485262cf8d979f

to 2.6.24-ovz. It applies cleanly and solves the issue. Thanks!
