Subject: Support for 3ware 9690SA
Posted by uhhosting on Mon, 21 Apr 2008 16:14:22 GMT
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Hi,

I want to run a box with the 3ware 9690SA SAS RAID controller. However, the kernel Virtuozzo uses doesn't officially support this device.

3ware themselves do make available a driver for the kernel, which can be compiled in manually. For this I'll need the kernel source Virtuozzo uses.

The latest kernel Virtuozzo uses for CentOS 5.1 is: 2.6.18-028stab053.10

Am I right in thinking this is the same one provided by OpenVZ:
http://wiki.openvz.org/Download/kernel/rhel5/028stab053.10 ?

Could I download the source, compile in the 3ware driver for the controller without all hell breaking loose and Virtuozzo dying?

Subject: Re: Support for 3ware 9690SA
Posted by khorenko on Mon, 21 Apr 2008 16:43:02 GMT
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Hi,

well, your idea looks correct - OpenVZ and Virtuozzo kernels are almost the same and your trick might bring you to a working system, but...
why don't you try to ask Virtuozzo support? You have a problem, great. Just try to ask - may be they already have a solution?

--
Konstantin

Subject: Re: Support for 3ware 9690SA
Posted by uhhosting on Mon, 21 Apr 2008 18:31:02 GMT
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I have asked Parallels, but they are awfully slow, even their sales staff work at a glacial pace and we need to order the correct parts for this new server this week.

Hell, I'll be surprised if Parallels even bother sending us the correct license this time without having to rant and scream.

OpenVZ is supported by Parallels, it makes sense to me to get a broad scatter of views.

Subject: Re: Support for 3ware 9690SA
Posted by uhhosting on Thu, 24 Apr 2008 22:30:13 GMT
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To add an update on this - I've been able to install the driver with the kernel CentOS 5.1 uses, 2.6.18-53.1.14.el5.

But when I try the same method with the kernel Virtuozzo installs (2.6.18-028stab053.4) I receive the following error at boot:

3w_9xxx: disagrees about version of symbol struct_module
insmod: error inserting '/lib/3w-9xxx.ko': -1 Invalid module format

Then after a few more seconds and loading of other modules, it kernel panics, presumably because it cannot mount the file system.

The error, I believe, is because the kernel module was originally designed for an EL5 kernel and has been compiled on this basis. The Virtuozzo kernel differs slightly to the EL5 kernel and so is producing this error.

I have the src of the 3ware driver, but I'm stuck on what to do next. I've submitted a support ticket to 3ware / AMCC (makers of the card) who may be able to assist.

Subject: Re: Support for 3ware 9690SA
Posted by uhhosting on Fri, 25 Apr 2008 00:29:57 GMT
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Bingo.

With assistance from 3ware:

rpm -ivh ovzkernel-2.6.18-53.1.4.el5.028stab053.4.x86_64.rpm
rpm -ivh ovzkernel-devel-2.6.18-53.1.4.el5.028stab053.4.x86_64.rpm

(downloadable here: http://wiki.openvz.org/Download/kernel/rhel5/028stab053.4)

cd /usr/src ; ln -s /usr/src/kernels/2.6.18-53.1.4.el5.028stab053.4.x86_64 linux

Install GCC:

yum install gcc

Download 3ware source (available on the full ISO, use packages/drivers/linux/src/2.6/kernels/new_distributions/3w- 9xxx.tgz

tar zxvf 3w* ; cd driver
make -f Makefile

Update the ramdisk

cp 3w-9xxx.ko /lib/module/2.6.18-028stab053.4/kernel/drivers/scsi

mkinitrd -v -f /boot/initrd-2.6.18-028stab053.4.img 2.6.18-028stab053.4

Modify grub.conf and remove the OpenVZ kernel, as a Virtuozzo user I don't want this kernel booting, I want the Virtuozzo kernel:

nano -w /boot/grub/grub.conf

Reboot.

Subject: Re: Support for 3ware 9690SA
Posted by uhhosting on Fri, 25 Apr 2008 10:00:30 GMT
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I made a slight mistake with the ramdisk step:

cp 3w-9xxx.ko /lib/modules/2.6.18-028stab053.4/kernel/drivers/scsi

Should be "modules" and not what I said above, "module".

Also, you'll need to repeat the process when updating Virtuozzo to 2.6.18-028stab053.10. When compiled against 2.6.18-028stab053.4 the 3ware driver doesn't work with 2.6.18-028stab053.10 unless recompiled.
