Subject: VirtualBox compatibility
Posted by eager on Sun, 07 Sep 2008 17:52:31 GMT
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I was interested in running VirtualBox on a system running an OpenVZ kernel. I installed CentOS 5 and updated it with OpenVZ RHEL-5.

When I attempt to install the VirtualBox for RHEL-5, building the kernel module fails. VBox uses the kernel function register_cpu_notification which is defined with CONFIG_HOTPLUG_CPU=Y (which is set in CentOS 5) but there is a wiki page http://wiki.openvz.org/Kernel_configuration which says that this config option is incompatible with SCHED_VCPU.

I tried rebuilding the OVZ kernel to have the kernel export a dummy version of register_cpu_notification even if CONFIG_HOTPLUG_CPU=N. This produced a kernel which booted OK, but when I try to build the VBox driver the system hangs for unknown reasons.

1) Has anyone been able to run VBox and OpenVZ side-by-side?
2) Is there a version of OpenVZ which supports CONFIG_HOTPLUG_CPU?

Any suggestions?

Subject: Re: VirtualBox compatibility
Posted by kenjy on Mon, 08 Sep 2008 15:27:05 GMT
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You needs to build the module in the hardware node.

Subject: Re: VirtualBox compatibility
Posted by eager on Mon, 08 Sep 2008 16:08:22 GMT
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Sorry, that doesn't mean much to me. Can you explain further?

Subject: Re: VirtualBox compatibility
Posted by kenjy on Mon, 08 Sep 2008 17:06:53 GMT
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VirtualBox needs to build a module in the kernel vboxdrv I think but I don't remember exactly. That module should be compiled in the hardware node because all the VE's share the same kernel so if you wanna have the module working in a VE you need to build it in the Hardware node. I have never tried with VirtualBox but I worked with apps who need kernel modules in the container, like firehol.So the modules should be in the Hardware node.

Try to build the module there and tell us.

Subject: Re: VirtualBox compatibility
Posted by eager on Mon, 08 Sep 2008 17:15:47 GMT
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As I said, building the VirtualBox driver fails because it requires CONFIG_HOTPLUG_CPU=Y, which is incompatible with OpenVZ's SCHED_VCPU.

Subject: Re: VirtualBox compatibility
Posted by kenjy on Mon, 08 Sep 2008 17:58:33 GMT
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ok Im trying to help, witch kernel version are you ussing? do you know if another version have a module compatibility? if not then well as you say (from the openvz wiki):

CONFIG_HOTPLUG_CPU option is incompatible with SCHED_VCPU.

Then if true for all kernel versions VB is incompatible with openvz.

Subject: Re: VirtualBox compatibility
Posted by eager on Mon, 08 Sep 2008 18:05:32 GMT
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Kernel is 2.16.8 -- 028stab057.2 -- latest for RHEL5.

My questions remain:
1) Has anyone been able to run VBox and OpenVZ side-by-side?
2) Is there a version of OpenVZ which supports CONFIG_HOTPLUG_CPU?

Subject: Re: VirtualBox compatibility
Posted by cachemonet on Tue, 09 Sep 2008 02:36:02 GMT
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I am running virtual box on a fedora 9 host system. Virtual box is in turn running centos 5.2 with with all of the latest updates on kernel 2.6.18-92.1.1.el5.028stab057.2 and the virtualized of centos is running openvz without an issue.

In addition to that configuration, I am running RedHat (a real licensed version) on my Dell D810 lattitude. It is successfully running virtualbox and openvz with the 2.6.18-92.1.1.el5.028stab057.2 kernel.

To answer your question, Virtual Box will run openvz

Subject: Re: VirtualBox compatibility
Posted by eager on Tue, 09 Sep 2008 05:05:17 GMT
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Quote:To answer your question, Virtual Box will run openvz

Sorry, I didn't ask whether OpenVZ can run as a guest under VirtualBox. I asked the opposite.

My question whether it was possible to run VirtualBox on a system running an OpenVZ kernel.

Subject: Re: VirtualBox compatibility
Posted by cachemonet on Tue, 09 Sep 2008 14:18:27 GMT
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In addition to that configuration, I am running RedHat (a real licensed version) on my Dell D810 lattitude. It is successfully running virtualbox and openvz with the 2.6.18-92.1.1.el5.028stab057.2 kernel.

Yes. They are running side by side on teh same laptop at teh same time. I have Virtualbox AND openvz running on a OPen vz kernel. Virtualbox modules compiled fine on a openvz kernel.

Subject: Re: VirtualBox compatibility
Posted by eager on Tue, 09 Sep 2008 16:42:25 GMT
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CONFIG_HOTPLUG_CPU is only needed with multi-processor systems with SMP support. On a uni-processors system, you wouldn't encounter any conflicts building VirtualBox.

Subject: Re: VirtualBox compatibility
Posted by januszzz on Thu, 18 Sep 2008 20:56:26 GMT
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I confirm the bug. Vbox modules fail to compile on OpenVZ kernel 2.6.18-028stab053-1 (in HN of course):

[...]
Building modules, stage 2.
make -rR -f /usr/src/linux-2.6.18-openvz-028.053-r2/scripts/Makefile.mod post
scripts/mod/modpost -m -i /usr/src/linux-2.6.18-openvz-028.053-r2/Module.symvers -I
/var/tmp/portage/app-emulation/virtualbox-modules-2.0.2/work /vboxdrv/Module.symvers -o

/var/tmp/portage/app-emulation/virtualbox-modules-2.0.2/work /vboxdrv/Module.symvers vmlinux
/var/tmp/portage/app-emulation/virtualbox-modules-2.0.2/work /vboxdrv/vboxdrv.o
WARNING: "register_cpu_notifier" [/var/tmp/portage/app-emulation/virtualbox-modules-2.0.2/work/vboxdrv/vboxdrv.ko] undefined!
make[2]: *** [__modpost] Error 1
make[1]: *** [modules] Error 2
make[1]: Leaving directory `/usr/src/linux-2.6.18-openvz-028.053-r2'
make: *** [vboxdrv] Error 2

This is serious problem as I'm completely running all my machines on 2.6.18. Is there a way to solve this? maybe we should ask on Vbox / Sun forum too?

Subject: Re: VirtualBox compatibility
Posted by poige on Fri, 02 Jan 2009 20:40:26 GMT
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eager wrote on Mon, 08 September 2008 01:52I was interested in running VirtualBox on a system running an OpenVZ kernel. I installed CentOS 5 and updated it with OpenVZ RHEL-5.

When I attempt to install the VirtualBox for RHEL-5, building the kernel module fails. VBox uses the kernel function register_cpu_notification which is defined with CONFIG_HOTPLUG_CPU=Y (which is set in CentOS 5) but there is a wiki page http://wiki.openvz.org/Kernel_configuration which says that this config option is incompatible with SCHED_VCPU.

Also, it says "On a non-SMP machine, you may disable SMP, this will resolve the conflict.

If you have an SMP machine, you can only disable FAIRSCHED and SCHED_VCPU. It will reduce some isolation between VEs (CPU scheduling will be performed per-task, not per-VE, and cpuunits and cpulimit settings will not take effect), but it is an acceptable solution if your VEs are trusted (and it's hard to imagine untrusted VEs on a notebook.) " — Yeah, it says. But it won't compile at least at the moment of writing, alas.

Subject: Re: VirtualBox compatibility
Posted by irontowngeek on Tue, 20 Jan 2009 18:37:28 GMT
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Running Virtualbox on a CENTOS 5 LINUX Hardware Node,requires no more effort to install,as you would any LINUX machine.
Why go through all this compiling of code,unless you are using the Open Source version of Virtualbox.
The short story is;

1. Download and install on the HN,the OVZ kernel source code,AND,the OVZ development headers,for the CENTOS 5 kernel
(2.18.53.1)

These files are (or was),available from the OpenVZ website.
2. Download and install the *.rpm of Virtualbox for RHEL5,or use the generic installer.

It works like a charm.
I run a Windows 2003 Server as DNS,along side my HN,in VRDP
server mode. (Windows DNS is easier than BIND)
Has virtual Ethernet working via bridging on the HN.
Running the Virtualbox VM,has very little impact on the HN resources.

Good luck