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Subject: Checkpoint and restore on 64 bit Debian host.  
Posted by [Hansel Dunlop](#) on Fri, 30 Sep 2011 16:45:46 GMT  
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Hello,

A question for the list.

We have developed a web service on 64 bit Debian locally on ZEN and for deployment on AWS. We really want to use OpenVZ so that we can give our users persistent console sessions across deployments of our software.

During our experiments with OpenVZ we discovered that Chkpt/Restore doesn't work on 64 bit Debian (or we couldn't make it work) which seems to be a known problem.

We figure it could be three or four weeks of work to switch to CentOS or Scientific Linux.

What advice do people have? I've been reading through the mailing lists but I don't feel like I have a clear picture of what is working and what is not right now. Are there events in the near future which might make this easier? Does anyone have working checkpointing on 64 bit Debian? Would it be quicker for us to try and fix the Debian issue itself?

Any advice greatly appreciated!

Kind regards

--  
Hansel Dunlop  
hansel.dunlop@resolversystems.com

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Subject: RE: Checkpoint and restore on 64 bit Debian host.  
Posted by [Martin Maurer](#) on Fri, 30 Sep 2011 17:11:36 GMT  
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> -----Original Message-----  
> From: users-bounces@openvz.org [mailto:users-bounces@openvz.org] On  
> Behalf Of Hansel Dunlop  
> Sent: Freitag, 30. September 2011 18:46  
> To: users@openvz.org  
> Subject: [Users] Checkpoint and restore on 64 bit Debian host.  
>

> Hello,  
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> work on 64 bit Debian (or we couldn't make it work) which seems to be a  
> known problem.

Hi,

This is a known issue and I assume this will be never be fixed. If you want to use Debian you can think of switching to Proxmox VE which is based on Lenny (1.9) or Squeeze (2.0 beta). We are using the stable RHEL6 OpenVZ kernel so you have a good chance to get chkp/restore running. There is only one issue with our init.logger patch, but if you disable it everything should work, live-migration etc.

See <http://pve.proxmox.com> and especially,  
[http://pve.proxmox.com/wiki/Install\\_Proxmox\\_VE\\_on\\_Debian\\_Lenny](http://pve.proxmox.com/wiki/Install_Proxmox_VE_on_Debian_Lenny)

Martin

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Subject: Re: Checkpoint and restore on 64 bit Debian host.  
Posted by [Kirill Kolyshkin](#) on Fri, 30 Sep 2011 22:05:40 GMT  
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You don't have to switch the OS, just use rhel6 kernel. It is in rpm so for now you have to use alien plus do some work after installing new kernel (run mkinitrd, modify grub.conf). We plan to provide deb report for rhel6 kernel real soon.

On Sep 30, 2011 8:49 PM, "Hansel Dunlop" <[hansel.dunlop@resolversystems.com](mailto:hansel.dunlop@resolversystems.com)> wrote:

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>

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> --

> Hansel Dunlop

> [hansel.dunlop@resolversystems.com](mailto:hansel.dunlop@resolversystems.com)

>

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Subject: Re: Checkpoint and restore on 64 bit Debian host.  
Posted by [mdfranz](#) on Fri, 30 Sep 2011 23:21:52 GMT  
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I'm currently running several servers (for development environments) on Debian Squeeze but am in the process of migrating to CentOS 6 because it seems to be a better supported environment and also provides an LTS OS, whereas Debian's support lifecycle is more "nuanced."

My assumption is also a larger base of OpenVZ users run on RHEL-derivatives than Debian, so it is always a safer bet. Running RHEL6 kernels on Debian boxes since more problematic than migrating to CentOS, even though I prefer Debian-based distros.

My other concern is the long term viability of OpenVZ on non-RHEL-based distributions given that Ubuntu dropped OpenVZ support and it seems that Debian will as well, given that (for good or evil) LXC seems to be the container-based solution that Debian and Ubuntu are going forward with.

The only problem I've encountered with OpenVZ on Debian (which is also a concern) is [http://bugzilla.openvz.org/show\\_bug.cgi?id=1747](http://bugzilla.openvz.org/show_bug.cgi?id=1747)

- mdf

On Fri, Sep 30, 2011 at 6:05 PM, Kirill Kolyshkin <kolyshkin@gmail.com> wrote:

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> now you have to use alien plus do some work after installing new kernel (run  
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> On Sep 30, 2011 8:49 PM, "Hansel Dunlop" <hansel.dunlop@resolversystems.com>  
> wrote:

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Subject: Re: Checkpoint and restore on 64 bit Debian host.  
Posted by [Hansel Dunlop](#) on Tue, 04 Oct 2011 17:00:16 GMT  
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Thanks Kiril,

I'm experimenting with this now. I converted vzkernel-2.6.32-042stab037.1.x86\_64.rpm into a deb and used it to boot but AWS did not want to run it. Complaining about XEN options. I see that the older kernel versions had specific XEN builds. I'm going to try and recompile the 2.6.32-042stab037 kernel from src. Are there any particular flags that I should set?

I did a diff on the config for a working Debian kernel and the EL6 version from OpenVZ, these are the options that relate to XEN. I guess I could just set them all and see if that works.

Debian is >  
OpenVZ is <

< CONFIG\_XEN\_MAX\_DOMAIN\_MEMORY=128

> CONFIG\_XEN\_MAX\_DOMAIN\_MEMORY=32

< CONFIG\_XEN\_DEBUG\_FS=y

> # CONFIG\_XEN\_DEBUG\_FS is not set

> CONFIG\_SWIOTLB\_XEN=y

> CONFIG\_MICROCODE\_XEN=y

```
> CONFIG_XEN_DOM0=y
> CONFIG_XEN_PRIVILEGED_GUEST=y
> CONFIG_XEN_DOM0_PCI=y
> # CONFIG_XEN_PCI_PASSTHROUGH is not set
> CONFIG_PCI_XEN=y
> CONFIG_XEN_PCIDEV_FRONTEND=y
> CONFIG_XEN_BACKEND=y
> CONFIG_XEN_NETDEV_BACKEND=y
> CONFIG_XEN_BLKDEV_BACKEND=y
> CONFIG_XEN_BLKDEV_TAP=m
> CONFIG_XEN_BLKBACK_PAGEMAP=y
> CONFIG_XEN_PCIDEV_BACKEND=y
> CONFIG_XEN_PCIDEV_BACKEND_VPCI=y
> # CONFIG_XEN_PCIDEV_BACKEND_PASS is not set
> # CONFIG_XEN_PCIDEV_BACKEND_SLOT is not set
> # CONFIG_XEN_PCIDEV_BACKEND_CONTROLLER is not set
> # CONFIG_XEN_PCIDEV_BE_DEBUG is not set
> CONFIG_XEN_MCE=y
> CONFIG_XEN_XENBUS_FRONTEND=y
> CONFIG_XEN_GNTDEV=y
> CONFIG_XEN_S3=y
> CONFIG_ACPI_PROCESSOR_XEN=m
```

Kind regards

Hansel

On 30/09/2011 23:05, Kirill Kolyshkin wrote:

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> so for now you have to use alien plus do some work after installing  
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> > \_\_\_\_\_  
> > Users mailing list  
> > Users@openvz.org <mailto:Users@openvz.org>  
> > https://openvz.org/mailman/listinfo/users  
>  
>  
--

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Subject: RE: Checkpoint and restore on 64 bit Debian host.  
Posted by [dietmar](#) on Tue, 04 Oct 2011 17:47:18 GMT  
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> I'm experimenting with this now. I converted vzkernel-2.6.32-  
> 042stab037.1.x86\_64.rpm into a deb and used it to boot but AWS did not want  
> to run it. Complaining about XEN options. I see that the older kernel versions had  
> specific XEN builds. I'm going to try and recompile the 2.6.32-042stab037 kernel  
> from src. Are there any particular flags that I should set?

You could also use the pve kernel from:

[ftp://download.proxmox.com/debian/dists/squeeze/pve/binary-amd64/pve-kernel-2.6.32-6-pve\\_2.6.32-46\\_amd64.deb](ftp://download.proxmox.com/debian/dists/squeeze/pve/binary-amd64/pve-kernel-2.6.32-6-pve_2.6.32-46_amd64.deb)

That is the latest openvz kernel compiled for debian squeeze.

- Dietmar

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Subject: Re: Checkpoint and restore on 64 bit Debian host.  
Posted by [Hansel Dunlop](#) on Fri, 07 Oct 2011 11:33:50 GMT  
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Thanks for the suggestion Dietmar,

That does boot up on AWS but still fails at the vzctl chkpnt CTID --dump



stage. Suspend and resume both work. But it just won't do the filedump.

I have had a good look at Proxmox because it seems interesting but we have so much development time invested in EC2 integration that moving away from that platform probably isn't wise.

Does anyone have CentOS or Scientific Linux successfully check pointing on a 64 bit EC2 instance? Knowing if this is even possible would certainly make our decision of what to do next easier!

Cheers

Hansel

On 04/10/2011 18:47, Dietmar Maurer wrote:

>> I'm experimenting with this now. I converted vzkernel-2.6.32-042stab037.1.x86\_64.rpm into a deb and used it to boot but AWS did not want to run it. Complaining about XEN options. I see that the older kernel versions had specific XEN builds. I'm going to try and recompile the 2.6.32-042stab037 kernel from src. Are there any particular flags that I should set?  
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