
Subject: Re: Question About Debian Squeeze OVZ Kernel

Posted by [dowdle](#) on Tue, 08 Nov 2011 17:11:26 GMT

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Greetings,

----- Original Message -----

> I'm in the lab testing debian squeeze and OVZ. The current debian
> repository is listing this for the OVZ kernel:
>
> root@ovz-test:~# aptitude show linux-image-2.6.32-5-openvz-686
> Package: linux-image-2.6.32-5-openvz-686
> State: installed
> Automatically installed: yes
> Version: 2.6.32-38
> Priority: optional
> Section: kernel
> Maintainer: Debian Kernel Team <debian-kernel@lists.debian.org>
> Uncompressed Size: 80.6 M
>
> How does the debian kernel version 2.6.32-*[38]* coorespond to the
> official OVZ release cycle kernels, the current stable release being
> (vzkernel-2.6.32-042stab040.1.src.rpm)?
>
> Does this indicate the debian kernel is 4 stable releases behind? Is
> anyone using the squeeze repository OVZ kernel? Any feedback on
> stability or use would be appriciated.

I think I'm going to dance around your questions some but hopefully answer them.

There are currently three stable OpenVZ kernel branches and they are all based on Red Hat Enterprise Linux kernels: RHEL4 2.6.9, RHEL5 2.6.18, and RHEL6 2.6.32. Please note that Red Hat supports their kernels for 7 years and approximately every 6 months they have a new minor release for each major release that includes an updated kernel with backported drivers, bug and security fixes, and some new features. Although a RHEL kernel is based on a specific mainline version, over their lifetime they get a lot of additional patches by Red Hat long after the mainline kernel developers and most everyone else has abandoned that version. The longer the kernel has been out and the more releases it has had from Red Hat, the more divergent it is from the original/last mainline version.

Debian does not use RHEL-based kernels. Why should they? The kernel they have for Debian 6 is 2.6.32 but with various patches they have added to it. Mainline is still supporting 2.6.32 so I'm sure Debian (and Red Hat for that matter) pull in updates from mainline as they are made available.

The mainline 2.6.32 and the RHEL 2.6.32 kernels are a bit different but don't ask me to go into the technical specifics. For one, I'm not knowledgeable enough about difference.

As you can see the Debian and the RHEL6-based OpenVZ kernels differ such that a particular release from one can not be ahead or behind another measured in releases. They are just different. In fact the Debian 6 kernel lacks a few features that the RHEL6-based OpenVZ kernels have and vice versa. For example, only the RHEL6-based OpenVZ kernel has `vswap` and `cpulimits`. To the best of my knowledge, the Debian kernel does not.

They are just different.

Some recommend, including Kir the OpenVZ project lead (or so I've gathered) using the RHEL6-based kernel on Debian. That takes a little work and doesn't really sound fun. Many Debian users seem to be happy with the Debian provided kernels. I myself recommend using RHEL or an EL clone for the host node (because of the kernel version parity and my own personal preferences) but I realize that isn't necessarily right for everyone.

It would be nice to have a wiki page that details all of the differences between the Debian and RHEL-based kernels but there are probably only a handful of people who know both well enough to really compare them... and they are changing / releasing fairly often.

Did I answer your questions?

TYL,

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