Subject: Debian: recommended kernel
Posted by Roman Haefeli on Wed, 02 May 2012 16:31:22 GMT
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Hi all

We're running OpenVZ on Debian Squeeze with the kernel shipped by
Debian.

Several sources recommend to use RHEL 6 stable kernel. Is it recommended
to use it also on Debian stable? If so, how should it be installed? The
wiki has links to rpm files only, it seems.

The reason I ask is that we're considering switching kernel, since the
Debian OpenVZ kernel seems to have issues. Specifically, we suffer from
the same problem as described here:
http://lists.debian.org/debian-kernel/2011/12/msg00689.html

Cheers
Roman

Subject: Re: Debian: recommended kernel
Posted by Timh B on Wed, 02 May 2012 17:39:09 GMT
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This was linked earlier this week;
https://github.com/CoolCold/tools/blob/master/openvz/kernel/ create-ovz-kernel-for-debian.sh

Might be useful for you if you wish to get a debianized openvz-kernel.

If you really want to run debian I would suggest looking into proxmox
instead since they build the stable rpm-kernels for debian.

Good luck!

//T

On Wed, May 2, 2012 18:31, Roman Haefeli wrote:
> Hi all
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> Debian.
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> http://lists.debian.org/debian-kernel/2011/12/msg00689.html
>
> Cheers
> Roman
>
>
-- Timh

Subject: Re: Debian: recommended kernel
Posted by coolcold on Wed, 02 May 2012 19:18:12 GMT
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On Wed, May 2, 2012 at 9:39 PM, Timh B <timh@shiwebs.net> wrote:
> This was linked earlier this week;
> https://github.com/CoolCold/tools/blob/master/openvz/kernel/ create-ovz-kernel-for-debian.sh
>
> Might be useful for you if you wish to get a debianized openvz-kernel.
>
> If you really want to run debian I would suggest looking into proxmox
> instead since they build the stable rpm-kernels for debian.
May be good, choice, yes. Not tried myself, but reading their maillist.

>
> Good luck!
>
> //T
>
> On Wed, May 2, 2012 18:31, Roman Haefeli wrote:
>> Hi all
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>> Debian OpenVZ kernel seems to have issues. Specifically, we suffer from
>> the same problem as described here:
>> http://lists.debian.org/debian-kernel/2011/12/msg00689.html
I was forced to switch into RHEL based kernels instead of Debian ones
because of another bug -
http://bugzilla.openvz.org/show_bug.cgi?id=1747 - I had connection

resets while on tcp sockets.

>>
>> Cheers
>> Roman
>>
>>
> -- Timh
>
>
--
Best regards,
[COOLCOLD-RIPN]

Subject: Re: Debian: recommended kernel
Posted by jjs - mainphrame on Wed, 02 May 2012 19:19:41 GMT
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I second the proxmox idea - it is an excellent platform, I recently
downloaded it to take a look and was quite impressed. It's a more
comprehensive solution than openvz+ovz-web-panel. I'm sold on it and will
deploy it in future. It does require x86_64 hardware though.

Joe

On Wed, May 2, 2012 at 10:39 AM, Timh B <timh@shiwebs.net> wrote:

> This was linked earlier this week;
>
> https://github.com/CoolCold/tools/blob/master/openvz/kernel/ create-ovz-kernel-for-debian.sh
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> > Cheers
> > Roman
> >
> >
> -- Timh
>
>

Subject: Re: Debian: recommended kernel
Posted by kir on Thu, 03 May 2012 05:14:50 GMT
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On 05/02/2012 09:39 PM, Timh B wrote:
> This was linked earlier this week;
> https://github.com/CoolCold/tools/blob/master/openvz/kernel/ create-ovz-kernel-for-debian.sh
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> Might be useful for you if you wish to get a debianized openvz-kernel.

Yet another solution is to use alien:
http://wiki.openvz.org/Install_kernel_from_RPM_on_Debian_6.0

The bad thing about it is it's not a "native" way. The good thing is you
have the same bit-by-bit binary kernel which we test a lot.

>
> If you really want to run debian I would suggest looking into proxmox
> instead since they build the stable rpm-kernels for debian.
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>> http://lists.debian.org/debian-kernel/2011/12/msg00689.html
>>
>> Cheers
>> Roman
>>

Subject: Re: Debian: recommended kernel
Posted by coolcold on Thu, 03 May 2012 06:32:06 GMT
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On Thu, May 3, 2012 at 9:14 AM, Kir Kolyshkin <kir@openvz.org> wrote:
> On 05/02/2012 09:39 PM, Timh B wrote:
>>
>> This was linked earlier this week;
>>
>> https://github.com/CoolCold/tools/blob/master/openvz/kernel/ create-ovz-kernel-for-debian.sh
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>> Might be useful for you if you wish to get a debianized openvz-kernel.
>
>
> Yet another solution is to use alien:
> http://wiki.openvz.org/Install_kernel_from_RPM_on_Debian_6.0
Well, alien works for binary part of kernel, but when I've tried to
install kernel headers that way, i had files conflicts, that's why
that script above was born.

>
> The bad thing about it is it's not a "native" way. The good thing is you
> have the same bit-by-bit binary kernel which we test a lot.
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>
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>> If you really want to run debian I would suggest looking into proxmox
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>>
>> On Wed, May 2, 2012 18:31, Roman Haefeli wrote:
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>>> Cheers
>>> Roman
>>>
>
--
Best regards,
[COOLCOLD-RIPN]

Subject: Re: Debian: recommended kernel
Posted by Roman Haefeli on Fri, 04 May 2012 09:58:12 GMT
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Thanks for all the responses!

On Thu, 2012-05-03 at 09:14 +0400, Kir Kolyshkin wrote:
> On 05/02/2012 09:39 PM, Timh B wrote:
> > This was linked earlier this week;
> > https://github.com/CoolCold/tools/blob/master/openvz/kernel/ create-ovz-kernel-for-debian.sh
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In the meanwhile I have tried two of the suggested solutions:

* RHEL6-kernel (debianized with alien)
* proxmox-kernel from their repository (which for the 2.6.32 version
says it is based on RHEL6)

(I haven't looked yet into building my own with CoolCold's script)

I didn't have troubles to install either of those. However, both expose the exact same problem. The network bridges vzbr0 and vzbr1 do not work correctly and I need those for the veth devices of the containers. Networking without those bridges seem to work fine, but when the bridges are active, TCP connections fail to work. UDP seems to be not affected, both inbound and outbound connections work. However, with TCP I can only establish outbound connections, but as soon as the connection is established, nothing is received on the other end anymore. Nor can I send from outside to the machine with vzbr0.

When I switch back to Debian's OpenVZ kernel, the problems disappear, but come back, when I boot into the RHEL6 or proxmox kernel. I wonder if really the kernel is the problem or rather some network/bridge configuration. I assume others do run bridges successfully with the aforementioned kernels also run CTs with veths successfully. Is that correct?

Roman

This is my network configuration on said machine:

```
eth2  eth3              physical NICs
 |    |
 +--+--+
    |
  bond0
    |
+---+-----+----------+
|       |        |
vlan20  vlan30   vlan31   VLANs
|       |
vzbr0   vzbr1            bridges

DMZ     local(NFS)
```

```
---
# The loopback network interface
auto lo
iface lo inet loopback

# Fasst die beiden physischen 10Gb-Ports zu
# einem Interface zusammen
auto bond0
```

```
iface bond0 inet manual
        bond-mode 4
        bond-miimon 100
        bond_xmit_hash_policy layer2+3
        bond_lacp_rate slow
        slaves eth2 eth3

# VLAN für DMZ (über bond0)
auto vlan20
iface vlan20 inet manual
        vlan_raw_device bond0
        address 0.0.0.0

# VLAN für NFS Netz (über bond0)
auto vlan30
iface vlan30 inet manual
        vlan_raw_device bond0
        address 0.0.0.0

# VLAN für iSCSI Netz (über bond0)
auto vlan31
iface vlan31 inet static
        vlan_raw_device bond0
        address 10.10.11.92
        network 10.10.11.0
        netmask 255.255.255.0

# Bridge für VZ (DMZ)
auto vzbr0
iface vzbr0 inet static
        bridge_ports vlan20
        bridge_maxwait 2
        address 195.176.254.92
        network 195.176.254.0
        netmask 255.255.255.128
        broadcast 195.176.254.127
        gateway 195.176.254.1

# Bridge für VZ (NFS Netz)
auto vzbr1
iface vzbr1 inet static
        bridge_ports vlan30
        bridge_maxwait 2
        address 10.10.10.92
        network 10.10.10.0
        netmask 255.255.255.0

---
```

Subject: Re: Debian: recommended kernel
Posted by Roman Haefeli on Wed, 09 May 2012 07:33:52 GMT
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On Fri, 2012-05-04 at 11:58 +0200, Roman Haefeli wrote:
> Thanks for all the responses!
>
> On Thu, 2012-05-03 at 09:14 +0400, Kir Kolyshkin wrote:
> > On 05/02/2012 09:39 PM, Timh B wrote:
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> >
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> both inbound and outbound connections work. However, with TCP I can only
> establish outbound connections, but as soon as the connection is
> established, nothing is received on the other end anymore. Nor can I
> send from outside to the machine with vzbr0.

Our problem looks very similar to the one described here:
https://bugzilla.redhat.com/show_bug.cgi?id=623199

Could it be that current stable OpenVZ suffers from the same issue? Or
asked differently: Is the current stable OpenVZ kernel based on RHEL 6.0
which does not contain the fixes as described in:
http://rhn.redhat.com/errata/RHSA-2011-0542.html

Roman

Subject: Re: Debian: recommended kernel
Posted by Roman Haefeli on Wed, 09 May 2012 07:49:45 GMT
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On Wed, 2012-05-02 at 18:31 +0200, Roman Haefeli wrote:
> Hi all
>
> We're running OpenVZ on Debian Squeeze with the kernel shipped by
> Debian.
>
> Several sources recommend to use RHEL 6 stable kernel. Is it recommended
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> The reason I ask is that we're considering switching kernel, since the
> Debian OpenVZ kernel seems to have issues. Specifically, we suffer from
> the same problem as described here:
> http://lists.debian.org/debian-kernel/2011/12/msg00689.html

It turns out that RHEL 6 based OpenVZ kernel causes more severe issues
than the one from Debian (see my last mail in this thread).

Actually, we found a simple work-around for our initial problem (see
above link): We turn off locking with the mount.nfs option 'nolock'.

We have a HA cluster with corosync/pacemaker running, which manages the
CTs which are running on an NFS export shared across all nodes. As the
HA layer makes sure to not run duplicate instances of CTs, there seems
to be no reason to have NFS locking enabled.

Roman

Subject: Re: Debian: recommended kernel
Posted by Aleksandar Ivanisevic on Wed, 09 May 2012 10:54:52 GMT
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Roman Haefeli <reduzent@gmail.com>
writes:

[...]

> We have a HA cluster with corosync/pacemaker running, which manages the
> CTs which are running on an NFS export shared across all nodes. As the
> HA layer makes sure to not run duplicate instances of CTs, there seems
> to be no reason to have NFS locking enabled.

How do you do STONITH in openvz? I hope you are doing it, because
thats the only thing that prevents corruption in the split brain
situations, now that you've turned off locking (i.e. fencing).

That being said, I'm still struggling to figure out how to do proper
clusters in the virtualized environment. If someone has any
pointers/tutorials/etc I would appreciate it. I'm specifically
interested in situations where you have more than one virtualized
clusters running on the same group of physical nodes.

Subject: Re: Re: Debian: recommended kernel
Posted by Roman Haefeli on Wed, 09 May 2012 12:43:51 GMT
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On Wed, 2012-05-09 at 12:54 +0200, Aleksandar Ivanisevic wrote:
> Roman Haefeli <reduzent@gmail.com>
> writes:
>
>
> [...]
>
> > We have a HA cluster with corosync/pacemaker running, which manages the
> > CTs which are running on an NFS export shared across all nodes. As the
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> > to be no reason to have NFS locking enabled.
>
> How do you do STONITH in openvz? I hope you are doing it, because
> thats the only thing that prevents corruption in the split brain
> situations,

We use SBD (Storage Based Death)

> now that you've turned off locking (i.e. fencing).

Turning on locking wouldn't prevent data corruption in case of a split
brain situation as for most files no lock is acquired.

Roman

Subject: Re: Debian: recommended kernel
Posted by Aleksandar Ivanisevic on Thu, 10 May 2012 09:02:49 GMT
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Roman Haefeli <reduzent@gmail.com>

writes:

[...]

>> now that you've turned off locking (i.e. fencing).
>
> Turning on locking wouldn't prevent data corruption in case of a split
> brain situation as for most files no lock is acquired.

Heh, I always thought openvz locks a file in $LOCKDIR to signal that
the container is running, but now that I look in the straces it looks
like it uses a custom ioctl, which is local kernel scope only.

Would probably be a nice feature request to use a flock or at least
leave a lockfile somewhere that can be mounted as a poor man's fencing
mechanism.

Subject: Re: Debian: recommended kernel
Posted by kir on Thu, 10 May 2012 16:06:35 GMT
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On 05/09/2012 11:33 AM, Roman Haefeli wrote:
> On Fri, 2012-05-04 at 11:58 +0200, Roman Haefeli wrote:
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>>
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> asked differently: Is the current stable OpenVZ kernel based on RHEL 6.0
> which does not contain the fixes as described in:
> http://rhn.redhat.com/errata/RHSA-2011-0542.html

If you go to http://wiki.openvz.org and put RHSA 2011 0542 into a search box you will get an answer,
which is kernel 042stab013.1 released a bit less than a year ago, end of May 2011.

So I am pretty sure the bug you are referring to is fixed.

Anyway, please file a new bug to bugzilla.openvz.org, and provide a simple scenario of how to reproduce it (please write a complete report).