
Subject: Switching from VMWare to OpenVZ?
Posted by [lists](#) on Tue, 12 Apr 2011 22:37:09 GMT
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Hello everybody,

my workgroup and me do mostly simulations of complex organic compounds and java programming. Since most of our programmes run pretty unstable we have been using VMWare to virtualize our Servers (Intel i7-920 Quad-Core/24GB DDR3 RAM/4TB RAID5).

A few months ago a colleague of mine tried OpenVZ and had a lot of troubles setting it up.

I think the most confusing part for him was the RAM/Swap-Management. So I thought before we try it again, we might just ask others if they have a similar setup.

Currently we have 4 VM with 5 GB RAM/15GB Swap each. Since there is a lot calculation involved it is always hard to say how much memory will actually be used.

With OpenVZ we got the error "out of swap/memory" a lot.

What kind of settings, limits would you recommend with OpenVZ for that particular setup?

Thanks for your help,
Chris

Subject: Re: Switching from VMWare to OpenVZ?
Posted by [kir](#) on Tue, 12 Apr 2011 22:45:24 GMT
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> What kind of settings, limits would you recommend with OpenVZ for that particular setup?

What OpenVZ kernel are you using? Also, see
http://wiki.openvz.org/Resource_shortage

Subject: Re: Switching from VMWare to OpenVZ?
Posted by [lists](#) on Wed, 13 Apr 2011 00:05:00 GMT
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Hello,

we used 2.6.26-2-openvz-amd64 and Debian as the host.

What I don't understand is: Should we assigne all 24GB RAM plus swap to each virtual machine?
Since there is no swap to use inside the container, this seems to be the only way to avoid out of memory failures if you don't know what your programm is going to consume...
or am I missing something?

Cheers,
Chris

Zitat von Kir Kolyshkin <kir@openvz.org>:

> 13.04.2011 2:42 ?????????????? <lists@yhmail.de> ??????????:
>>
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>>
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> java programming. Since most of our programmes run pretty unstable we have
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>

Subject: Re: Switching from VMWare to OpenVZ?
Posted by [Tim Small](#) on Wed, 13 Apr 2011 08:00:05 GMT
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On 12/04/11 23:37, lists@yhmil.de wrote:

> Hello everybody,
>
> my workgroup and me do mostly simulations of complex organic compounds
> and java programming. Since most of our programmes run pretty unstable
> we have been using VMWare to virtualize our Servers (Intel i7-920
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> actually be used.
>
> With OpenVZ we got the error "out of swap/memory" a lot.
>
> What kind of settings, limits would you recommend with OpenVZ for that
> particular setup?

Dunno, it depends on how worried you are about one job potentially taking out the whole server, and what the likelihood is of multiple VMs all using a lot of RAM at the same time. If you are using Debian then

maybe use

`vzsplit -n 1`

or

`vzsplit -n 2`

or interpolate somewhere in between? The "vzcalc" tool is also worth looking at, and I'd advise using Munin on the machine to track resource usage (there are a couple of OpenVZ plugins).

It's also worth noting that 2.6.26 isn't a kernel version that OpenVZ support, where as 2.6.32 (as used by Debian 6.0) is an OpenVZ supported version, so you may want to switch to that before doing a new deployment.

In particular if you are using software RAID5, I've seen some IO deadlocks on 2.6.26 with OpenVZ and software RAID - those problems aren't present on 2.6.32.

Also worth noting is that I don't believe OpenVZ is planned to be officially supported in the next Debian version (possibly it will be if Linux Containers - LXC - aren't workable).

Cheers,

Tim.

Subject: Re: Switching from VMWare to OpenVZ?
Posted by [dowdle](#) on Wed, 13 Apr 2011 16:31:10 GMT
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Greetings,

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

> It's also worth noting that 2.6.26 isn't a kernel version that OpenVZ
> support, where as 2.6.32 (as used by Debian 6.0) is an OpenVZ supported
> version, so you may want to switch to that before doing a new deployment.

Just to clarify, currently the only OpenVZ kernel branches marked as stable are:
RHEL4-2.6.8
RHEL5-2.6.18

The current OpenVZ devel kernels branches are:
RHEL6-2.6.32
2.6.32
2.6.27

2.6.27 is a long-term supported kernel by mainline I believe.

All of that is documented on the OpenVZ wiki here:

<http://wiki.openvz.org/Download/kernel>

> Also worth noting is that I don't believe OpenVZ is planned to be
> officially supported in the next Debian version (possibly it will be if
> Linux Containers - LXC - aren't workable).

It is my understanding that Parallels has actually hired a kernel developer in the states to work on LXC in the mainline. I haven't seen too much info on that yet... but yeah, the long-term future of containers in Linux is LXC. I don't really recommend LXC now unless you don't mind the bleeding-edge with bumps in the road.

TYL,

--

Scott Dowdle
704 Church Street
Belgrade, MT 59714
(406)388-0827 [home]
(406)994-3931 [work]

Subject: Re: Switching from VMWare to OpenVZ?
Posted by [dowdle](#) on Wed, 13 Apr 2011 18:46:53 GMT
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Greetings,

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

> Just to clarify, currently the only OpenVZ kernel branches marked as
> stable are:
> RHEL4-2.6.8

Opps, make that RHEL4-2.6.9.

TYL,

--

Scott Dowdle
704 Church Street
Belgrade, MT 59714
(406)388-0827 [home]
(406)994-3931 [work]

Subject: Re: Switching from VMWare to OpenVZ?

Posted by [Tim Small](#) on Wed, 13 Apr 2011 19:53:56 GMT

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On 13/04/11 17:31, Scott Dowdle wrote:

> Greetings,

>

> ----- Original Message -----

>

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>> support, where as 2.6.32 (as used by Debian 6.0) is an OpenVZ supported
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> RHEL6-2.6.32

> 2.6.32

> 2.6.27

>

> 2.6.27 is a long-term supported kernel by mainline I believe.

>

OK, thanks for that - I thought 2.6.32 was OpenVZ supported already, but clearly it isn't - the Debian version of 2.6.32 it is Debian-supported already, of course (whereas 2.6.26 effectively isn't being supported by Debian any more except for security updates).

2.6.32 is a long-term supported kernel by mainline (2.6.32.36 released 2011-03-27) - it's also the kernel which has been picked by RHEL6, Debian 6, Ubuntu 10.04 LTS, and SLES.

I'd guess that 2.6.32 will be supported by Parallels in-time (just because that's what RHEL6 uses), and is receiving active development, bug fixes, etc.

2.6.27 probably won't be supported as a stable release by Parallels at any point, I'd have thought (anyone know any different?).

> 2.6.27 is a long-term supported kernel by mainline I believe.

It is, and it appears to still be going (2.6.27.58 2011-02-09). I was under the impression that it wasn't anymore, but I believe 2.6.32 is the "main" long-term kernel at the moment.

2.6.26 isn't long-term (although in practise I believe the Debian Kernel team did backport some stuff from it). 2.6.26 / Debian 5.0 will get security fixes until next Jan, but no more bug fixes AFAIK.

On that basis, my advise based on personal experience would be to run

any new Debian OpenVZ deployments on Debian 6 / 2.6.32 ...

> I don't really recommend LXC now unless you don't mind the
> bleeding-edge with bumps in the road.

ACK. It doesn't do much in the way of resource usage limiting (at least not on 2.6.32 last time I looked), so if you need that it'd be a show-stopper.

Cheers,

Tim.

--

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Subject: Re: Switching from VMWare to OpenVZ?
Posted by [ckkashyap](#) on Thu, 14 Apr 2011 06:27:55 GMT
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Hi Chris ... I am very keen to understand if you were able to get rid of the "With OpenVZ we got the error "out of swap/memory" a lot." problem.

Regards,
Kashyap

On Thu, Apr 14, 2011 at 1:23 AM, Tim Small <tim@seoss.co.uk> wrote:

> On 13/04/11 17:31, Scott Dowdle wrote:

>

> Greetings,

>

> ----- Original Message -----

>

>

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> Cheers,
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> Tim.
>
> --
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