
Subject: OS/app in the OpenVZ container
Posted by [Tommy](#) on Thu, 10 Nov 2011 07:29:35 GMT
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Hi All,

I'm doing some research on processing virtual machine recently.

As I what know now, I think OpenVZ vps runs the same OS kernel as the host system.

The vps is a group of processes which are forked on the host system.

In the OpenVZ container, there are some processes to run an os.

Is it possible to run only one App in the container instead of the os based on the host os? such as a media player?

what are work should I need to do mainly?

could you give me some suggestion?

Thanks.

Tommy

--

Yours Sincerely!

Subject: Re: OS/app in the OpenVZ container
Posted by [Kirill Korotaev](#) on Thu, 10 Nov 2011 08:22:33 GMT
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Yes, it's possible to run a single app in a container.

The easiest way is to let the startup scripts setup /proc, /sysfs and the rest of environment and then specify in inittab or rc.X what to run on this particular runlevel.

However, for media player you may also need to run some of X parts, not just a media player alone.

Thanks,
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Subject: Re: OS/app in the OpenVZ container
Posted by [Tommy](#) on Thu, 10 Nov 2011 08:59:28 GMT
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it acts as a system virtual machine

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- 1.create the container
- 2.start the app in the container

this will act as a process virtual machine

any suggestion?

thanks

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Yours Sincerely!

Subject: Re: OS/app in the OpenVZ container
Posted by [Stoyan Stoyanov](#) on Thu, 10 Nov 2011 09:29:01 GMT
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> { so-language: zxx } -->
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Stoyan Stoyanov
Core System Administrator

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Subject: Re: OS/app in the OpenVZ container
Posted by [kir](#) on Thu, 10 Nov 2011 10:33:41 GMT
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On 11/10/2011 11:29 AM, Tommy wrote:
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It's pretty simple. What OpenVZ kernel does it creates a container and runs /sbin/init inside it. What goes next is up to that particular /sbin/init. If you need to run an app let /sbin/init run just it, or let this app be /sbin/init (but bear in mind there will be no child reaper as in usual linux system so you might need to take some extra care about zombie processes).

Subject: Re: OS/app in the OpenVZ container
Posted by [kir](#) on Thu, 10 Nov 2011 10:36:30 GMT
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- On 11/10/2011 01:29 PM, Stoyan Stoyanov wrote:
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This way you will only isolate the file system (and not in totally inescapable way I must add). chroot() is essentially a file system namespace, and there are a dozen of others in OpenVZ, and then a dozen of resource limits.

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It is possible. As I noted in another reply to this thread, OpenVZ kernel just runs /sbin/init inside the container and assumes that init will handle the rest.

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Subject: Re: OS/app in the OpenVZ container
Posted by [mdfranz](#) on Thu, 10 Nov 2011 12:16:24 GMT
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Tommy,

You might want to want to look at LXC as well. Although i agree that is is pretty much impossible to run a single process, but it all depends what you are trying to do...

(BTW, don't mean to start an LXC vs. OpenVZ flame war, because the features/tools in VZ are much more mature but because LXC is fairly primitive relative to VZ it might be an option)

- mdf

2011/11/10 Kirill Korotaev <dev@parallels.com>:

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Matthew Franz
mdfranz@gmail.com

Subject: Re: OS/app in the OpenVZ container
Posted by [rmello](#) on Thu, 10 Nov 2011 13:13:00 GMT
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2011/11/10 Tommy <thfbjhkhtdx@gmail.com>

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<snip>

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1. vzctl start <container_id>
2. vzctl exec <container_id> <executable>

Where <executable> can be either an application or a script that will a) run the application, b) detach from the shell. The <executable> has to be present inside the container.

Another (possibly simpler) way is to simply have the executable be started by one of your startup scripts. That way you wouldn't even have to worry about detaching from the shell.

Roberto

Subject: Re: OS/app in the OpenVZ container
Posted by [Stoyan Stoyanov](#) on Tue, 15 Nov 2011 07:50:11 GMT
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You may wanna take a look at this:
<http://qubes-os.org/Architecture.html>

On Nov 10, 2011, at 12:36 PM, Kir Kolyshkin wrote:

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Subject: Re: OS/app in the OpenVZ container
Posted by [Enrico Weigelt](#) on Wed, 07 Dec 2011 04:23:46 GMT
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* Kir Kolyshkin <kir@openvz.org> wrote:

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> zombie processes).

ACK.

The probably easiest way is to take some minimal OS image, so you also get a shell, libc, and essential setups (mounting /proc and /sys), etc. You'll most likely also need some little setup stuff to let your app communicate with the outside world (eg. routing, filesystem access, etc).

Doing this all completely on your own takes a lot of more efforts, but makes a good learning project :)

Some time ago (left it aside due lack of time), I've been working on an kind of nano-distro for such use-cases, built with my Briegel buildsystem (it crosscompiles tiny images which only include the

really essential stuff) . If you're really interested, I'd dig it out again.

cu

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Enrico Weigelt, metux IT service -- <http://www.metux.de/>

phone: +49 36207 519931 email: weigelt@metux.de
mobile: +49 151 27565287 icq: 210169427 skype: nekrad666

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