Subject: Hosting provider uses OpenVZ - what are the minimum container support requirements?
Posted by adfhogan on Wed, 30 Jul 2014 04:50:06 GMT
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Hi folks,

Recently I've decided to try and move from an aging dedicated hosting system at one provider, to an OpenVZ solution at another provider. Out of the distribution choices (CentOS, Debian, Ubuntu, Fedora), I chose Debian as I prefer apt based systems over RPM (what I'm used to).

Anyway, on the existing host, I've been using Debian 'testing' aka 'Jessie'. On the OpenVZ container I have, they provide Debian 'stable' aka 'wheezy' as the most modern release.

Upon realising that it was container based virtualisation, I knew not to touch the kernel version (and indeed figured that it wouldn't be using usual boot manager, and that indeed there probably wasn't a boot sector as such as they're using simfs), but then attempted to install newer Apache (2.4) and some related packages via some apt version pinning trickery. I successfully got the packages installed, but when I went to reboot the container, I found that something had been erased by the upgrades (I'm thinking maaaaaybe it was related to init/systemd/sysvinit but that's me taking a wild guess based upon some error messages I saw mentioning init).

When I spoke with the hosting company, they indicated to get the VM at least functional so I could get files off it, that some things had been erased in /dev/, /etc/ and /lib/, that they'd loaded some dependencies back in, but things were still not functioning as they should. They've reset my hosting now so it's "factory fresh", but I obviously don't want to hose the support components like I did last time.

Is there a guide as to which support components are required in an OpenVZ container, so I can try my best to either maintain them or upgrade them safely to compatible systems?

Subject: Re: Hosting provider uses OpenVZ - what are the minimum container support requirements?
Posted by adfhogan on Tue, 26 Aug 2014 03:11:33 GMT
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Ok.. well guess I'll start answering my own questions

So far I've found out that OpenVZ expects upstart and not sysvinit and if one allows sysvinit to take over when performing a dist-upgrade, it'll spin the CPU up to 100%tamcore.eu/openvz-debian-7-und-sysvinit/ (German)
I also found out whilst reading the OpenVZ container instructionsopenvz.org/Debian_template_creationthat OpenVZ expects:/dev/ptmx (special character file, major 5, minor 2)
symlink /etc/mtab to /proc/mounts
This would mean that when upgrading within the guest (when one is a hosting customer, and not manager of the host environment) that anything that would change within the container the system

init daemon, remove/reset the mtab symlink or would cause the ptmx special character device node to vanish will cause problems.

What remains to be determined is if Debian 'testing' can be made to play nice with Linux kernel 2.6.32-042stab092.3 (as opposed to its usual linux 3.x) and udev can be made to keep /dev/ptmx intact.

Subject: Re: Hosting provider uses OpenVZ - what are the minimum container support requirements?
Posted by adfhogan on Tue, 26 Aug 2014 03:22:52 GMT
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Ahh.. answering my question again.. udev best avoided on older kernels due to changes afoot to remove userspace firmware loading in udev.
lists.freedesktop.org/archives/systemd-devel/2014-May/019587 .html

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Subject: Re: Hosting provider uses OpenVZ - what are the minimum container support requirements?
Posted by Ales on Tue, 26 Aug 2014 22:41:59 GMT
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Thanks for reporting back. This forum can be quiet at times, don't let it dissuade you. Others with similar questions will find the information very useful.
