Subject: Can't checkpoint any VE
Posted by jasper on Mon, 16 Jun 2008 22:55:55 GMT
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I cannot checkpoint any VE on our OpenVZ system. Kernel and filesystem details are shown below followed by the result of attempting checkpointing.

virt-1 ~ # uname -a
Linux virt-1 2.6.24-ovz005 #4 SMP Fri Jun 6 12:52:46 NZST 2008 x86_64 Intel(R) Core(TM)2 Quad CPU Q9450 @ 2.66GHz GenuineIntel GNU/Linux

virt-1 ~ # mount | grep ' /vz '
/dev/sdc1 on /vz type ocfs2 (rw,_netdev,heartbeat=local)

virt-1 ~ # vzctl chkpnt 102
Setting up checkpoint...
suspend...
dump...
Can not dump VE: Interrupted system call
Error: error while writing dump file: -512
Checkpointing failed

Subject: Re: Can't checkpoint any VE
Posted by jasper on Mon, 16 Jun 2008 23:00:38 GMT
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From running 'strace -f vzctl chkpnt 102', I deduced that the "Interrupted system call" mentioned is the following one:

[pid 23382] ioctl(5, 0x2d06, 0) = -1 EINTR (Interrupted system call)

The file descriptor referred to (5) refers to /proc/cpt

Subject: Re: Can't checkpoint any VE
Posted by dowdle on Tue, 24 Jun 2008 05:37:57 GMT
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As you may or may not know, OpenVZ has three kernel branches that are marked as stable. They are RHEL4-based 2.6.9, RHEL5-based 2.6.18, and 2.6.18. No other kernel branches are currently marked as stable... although that may change in the future.

I mostly use the RHEL5-based 2.6.18 kernels on RHEL and CentOS host nodes and I have had no problems with online and offline migrations from one physical host to another. Migration uses checkpointing... and checkpointing isn't something I do without migrating.

I have tried the 2.6.24 based kernel in the Proxmox VE system. I also understand that Ubuntu uses a 2.6.24 based OpenVZ kernel... and there are probably other distros using non-stable kernel branches. My experience with the Proxmox VE kernel has been that it will not do live migration but will do offline just fine.

My advice, use a stable kernel branch if at all possible. I'd not necessary recommend you retro-fit a newer distro with an older kernel... but I believe some people do it that way. Being a RHEL/CentOS person, I highly recommend using them for your host node for as problem-free an experience as possible... since the OpenVZ kernels are taken from their stock kernel versions. Not everyone is happy with using RHEL or CentOS though.

The Parallels and OpenVZ folks are working on other branches as well as getting control groups (cgroups aka Linux Native Containers) into the mainline kernel... and once that is complete (no timetable as to when that will be yet) containers will have caught up to current mainline kernel and continue on with each new mainline kernel that is released.

Some people cringe when they hear 2.6.18 because they consider it too old... but the RHEL based ones have a lot of stuff backported from newer kernels... because Red Hat keeps up with drivers and releases updated install media with an updated kernel about every 6 months... so their kernels are fairly fresh with regards to hardware support... even though they have an older version number.
