Subject: *solved* do_IRQ: stack overflow crash (2.6.16-026test017.1)
Posted by HubertD on Tue, 29 Aug 2006 13:19:55 GMT
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Hello,

I'm running a self-compiled linux-2.6.16 using the
patch-026test017-combined.gz patchset on a Xeon-HT-Machine (IBM xServer 345), kernel config attached.

uname -a
Linux nibbler.little-isp.de 2.6.16-026test017 #1 SMP Mon Aug 21 18:58:28 CEST 2006 i686 GNU/Linux

It crashed once after ~7h uptime using the test015 patches and now crashed after ~8d uptime using the test17 patches.

Logs showed nothing of interest upon the first crash, so I attached a serial console for my second try and all I found today was this error message:
do_IRQ: stack overflow: 384

The kernel didn't react on serial SysRq-Commands, I also tried the "panic=10 oops=panic" kernel parameters, but the machine wouldn't restart on its own :-(

Don't know if this is enough to file a bug report, but I also don't know how to gain more information from our (more/less productive) server.

Help, anybody?

File Attachments
1) kernel-config, downloaded 352 times

Subject: Re: do_IRQ: stack overflow crash (2.6.16-026test017.1)
Posted by dev on Tue, 29 Aug 2006 14:03:32 GMT
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These messages about stack overflow are bad and probably it is the hint why your kernel crashes. After these message there should be a call trace, is it there? can you post it here please?

Are you running some complex configuration with MD (raid), maybe DRBD, networking tunnels etc? can you describe your configuration plz?

Next, turn this option to 'n':
CONFIG_4KSTACKS=y
This will increase stack size from 4K to 8K.

It would be really nice to get the call trace as it would help to catch the bug. Most likely it is a mainstream problem unrelated to OpenVZ itself, but sure, this doesn't help you much

Subject: Re: do_IRQ: stack overflow crash (2.6.16-026test017.1)
Posted by HubertD on Tue, 29 Aug 2006 16:07:30 GMT
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thanks for your answer.
I did not see a call trace on the serial console, do I have to configure something to have it printed on serial?
The stack overflow message was the last line there...

Unfortunately I don't have physical access to the server so I can't see local console messages...

Yes, the server is running some complex configuration, including

some OpenVPN tunnels
loads of LVM volumes (14 volumes on 3 VGs)
filesystem snapshots every 2h via rsync --link-dest
3 chrooted debian installations that i wanted to replace with OpenVZ

No MD-raid or drbd, server uses Hardware Raids on the Adaptec ServeRaid adapter...

Any way to get a call trace that I didn't try already?
The problem should somehow be related to OpenVZ - never had such a Crash in 2 years running vanilla kernels, first crash 7h after booting a OpenVZ kernel... ;)

Subject: Re: do_IRQ: stack overflow crash (2.6.16-026test017.1)
Posted by dev on Tue, 29 Aug 2006 17:51:22 GMT
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call traces should have printed right after the message about stack... strange :/

can you help with resolving the problem? if no (e.g. if you can't experiment with this system), then just set CONFIG_4KSTACKS=n and retry.

if yes, I will think over a debug patch for stack overflow hunting.

P.S. you couldn't have been running 2.6.16 for 2 years)))
BTW, you can check if mainstream kernel compiled with the same .config crashes.

Subject: Re: do_IRQ: stack overflow crash (2.6.16-026test017.1)
Posted by HubertD on Tue, 29 Aug 2006 19:25:50 GMT
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Thanks for your support so far!

I'm gonna reboot the system with a 8k-stack-kernel now and see whether the problem persists. If it does, I will try the vanilla kernel. (I upgraded from 2.6.15 to 2.6.16 together with the openvz install).
Of course, the system wouldn't have run a vanilla 2.6.16 for 2 years, but it did run vanilla 2.6.8, 2.6.11 and 2.6.15 kernels without a crash in that time period.

I would surly like to help resolving the problem, another few planned reboots should be no problem, but the system must be somewhat productive in between (it's mainly acting as a mail&webserver for ~20 customers)

Concerning the missing call traces:
I'm monitoring the serial line with minicom in a screen session on a second server. Is this a a reasonable setup or should I try something else?

Subject: Re: do_IRQ: stack overflow crash (2.6.16-026test017.1)
Posted by dev on Wed, 30 Aug 2006 08:40:36 GMT
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you know, each kernel has its own set of bugs

ok, let's first check with 8k-stacks.

minicom should be ok.

Subject: *solved* do_IRQ: stack overflow crash (2.6.16-026test017.1)
Posted by HubertD on Wed, 13 Sep 2006 08:10:30 GMT
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after 14 days uptime I had to reboot the server for some other reason. Seems to work stable with 8k stacks, though.

thanks again for your help!

Subject: Re: *solved* do_IRQ: stack overflow crash (2.6.16-026test017.1)
Posted by dev on Wed, 13 Sep 2006 13:27:17 GMT
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Hope so! Feel free to report problems (though hope you won't have one)!