Subject: TUN causing instability.
Posted by KuJoe on Wed, 30 Nov 2011 08:42:55 GMT
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We recently migrated to new hardware nodes with the latest OpenVZ kernel and started to experience instability with TUN. At first, all live migrations with VPSs that have TUN enabled caused a kernel panic. Now when we enable TUN on a VPS and they run "tunctl -t tun0" they get the error ""enabling TUNSETPERSIST: Operation not permitted" and it causes the loads to spike over 300.0 which requires the node to be forcefully rebooted.

Is it really that easy to crash a whole OpenVZ node with a single command? Any ideas how to fix this?

Kernel: 2.6.18-274.7.1.el5.028stab095.1
vzctl version 3.0.29.3

Subject: Re: TUN causing instability.
Posted by KuJoe on Fri, 02 Dec 2011 05:48:59 GMT
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Any ideas of where to look? I've checked all logs, top, ps, and iotop, but there is no sign of what is causing the high loads. I moved the client to his own node with different hardware and the latest kernel but the problem continues.

Subject: Re: TUN causing instability.
Posted by KuJoe on Fri, 02 Dec 2011 06:56:07 GMT
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Resolved by using an older kernel.

Subject: Re: TUN causing instability.
Posted by Bryon on Sun, 15 Jan 2012 22:05:23 GMT
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We're experiencing the same issue with multiple servers running the latest OpenVZ kernel. Which older kernel did you switch to?

If a container (with TUN enabled) runs "tunctl" while the system is actively in use by customers, it begins to receive many hung / blocked task log messages. On a busy system, the load immediately spikes. Immediately after running tunctl no new connections to the system can be made (e.g. SSH) and tunctl never returns, it only outputs "enabling TUNSETPERSIST: Operation not permitted."

On a busy system the server will eventually crash with many lines similar to those below within

messages:

Jan 14 20:44:40 x22 kernel: INFO: task irqbalance:9026 blocked for more than 300 seconds.
Jan 14 20:44:40 x22 kernel: "echo 0 > /proc/sys/kernel/hung_task_timeout_secs" disables this message.
Jan 14 20:44:40 x22 kernel: irqbalance D ffff81043b8e2ba0 0 9026 1 9061 8885 (NOTLB)
Jan 14 20:44:40 x22 kernel: ffff81042c73bd78 0000000000000086 3933323036383031 00002b3d84fe2035
Jan 14 20:44:40 x22 kernel: ffff81043b8e2ba0 ffffffff8031bba0 0004e24c1dee8030 000bbd68d82c77c7
Jan 14 20:44:40 x22 kernel: ffff81043b8e2da8 0000000000030002 0000000000000000 ffffffff804a6280
Jan 14 20:44:40 x22 kernel: Call Trace:
Jan 14 20:44:40 x22 kernel: [<ffffffff8006520d>] __mutex_lock_slowpath+0x60/0x9b
Jan 14 20:44:40 x22 kernel: [<ffffffff8023215e>] dev_name_hash+0x1e/0x64
Jan 14 20:44:40 x22 kernel: [<ffffffff80065257>] .text.lock.mutex+0xf/0x14
Jan 14 20:44:40 x22 kernel: [<ffffffff80232598>] dev_load+0x18/0x46
Jan 14 20:44:40 x22 kernel: [<ffffffff80232cb0>] dev_ioctl+0x317/0x497
Jan 14 20:44:40 x22 kernel: [<ffffffff802277fa>] sock_ioctl+0x1d4/0x1e5
Jan 14 20:44:40 x22 kernel: [<ffffffff80043f2e>] do_ioctl+0x21/0x6b
Jan 14 20:44:40 x22 kernel: [<ffffffff8003154a>] vfs_ioctl+0x457/0x4b9
Jan 14 20:44:40 x22 kernel: [<ffffffff800c37ca>] audit_syscall_entry+0x1a8/0x1d3
Jan 14 20:44:40 x22 kernel: [<ffffffff8004ec3e>] sys_ioctl+0x3c/0x5c
Jan 14 20:44:40 x22 kernel: [<ffffffff800602dd>] tracesys+0xd5/0xe0
Jan 14 20:44:40 x22 kernel:
Jan 14 20:44:40 x22 kernel: INFO: task tunctl:22859 blocked for more than 300 seconds.
Jan 14 20:44:40 x22 kernel: "echo 0 > /proc/sys/kernel/hung_task_timeout_secs" disables this message.
Jan 14 20:44:40 x22 kernel: tunctl D ffff81037b0b61a0 0 22859 22784 (L-TLB)
Jan 14 20:44:40 x22 kernel: ffff8101c0635d68 0000000000000046 0000000100000000 ffff8102003cda08
Jan 14 20:44:40 x22 kernel: ffff81037b0b61a0 ffff81033bcf32e0 0004e2443ca8806b 000bbd55e7240efd
Jan 14 20:44:40 x22 kernel: ffff81037b0b63a8 0000000300000000 ffff8101da059980 ffff8102f59a0000
Jan 14 20:44:40 x22 kernel: Call Trace:
Jan 14 20:44:40 x22 kernel: [<ffffffff8006520d>] __mutex_lock_slowpath+0x60/0x9b
Jan 14 20:44:40 x22 kernel: [<ffffffff80065257>] .text.lock.mutex+0xf/0x14
Jan 14 20:44:40 x22 kernel: [<ffffffff88a1da20>] :tun:tun_chr_close+0x32/0x78
Jan 14 20:44:40 x22 kernel: [<ffffffff800128ef>] __fput+0xd3/0x1c2
Jan 14 20:44:40 x22 kernel: [<ffffffff800248f8>] filp_close+0x5c/0x64
Jan 14 20:44:40 x22 kernel: [<ffffffff8003a94e>] put_files_struct+0x63/0xae
Jan 14 20:44:40 x22 kernel: [<ffffffff80015ba0>] do_exit+0x74c/0xe2d
Jan 14 20:44:40 x22 kernel: [<ffffffff800c37ca>] audit_syscall_entry+0x1a8/0x1d3
Jan 14 20:44:40 x22 kernel: [<ffffffff8004b625>] cpuset_exit+0x0/0x88
Jan 14 20:44:40 x22 kernel: [<ffffffff800602dd>] tracesys+0xd5/0xe0

Jan 14 20:44:40 x22 kernel:

On a system with low activity nothing appears within any monitoring utilities (e.g. top, iostat) or within messages/dmesg.

Subject: Re: TUN causing instability.
Posted by Bryon on Sun, 15 Jan 2012 22:08:14 GMT
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I forgot to mention we're using kernel 2.6.18-274.7.1.el5.028stab095.1 - The same as KuJoe.

I can also say that we've experienced many "crashes" during live migrations. We're fairly certain the crashes occurred during the migration of a container with TUN enabled and most likely in use. We've been so far unable to retrieve a kernel panic because we do not have physical access to the systems.

Subject: Re: TUN causing instability.
Posted by KuJoe on Thu, 19 Jan 2012 04:10:33 GMT
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We reverted back to 2.6.18-238.19.1.el5.028stab092.2. This was the latest kernel we've found to not allow clients to crash the hardware node.

Subject: Re: TUN causing instability.
Posted by Bryon on Thu, 19 Jan 2012 04:14:09 GMT
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Thanks for letting me know. We've also downgraded to 2.6.18-238.19.1.el5.028stab092.2 on servers with clients that require TUN.

Subject: Re: TUN causing instability.
Posted by Bryon on Tue, 13 Mar 2012 17:29:22 GMT
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Looks like this may have been fixed in 028stab099.3 --

Lookup bugzilla #2207 - Can't include a link in my reply.

Subject: Re: TUN causing instability.
Posted by KuJoe on Thu, 29 Mar 2012 04:28:01 GMT
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My node running 99.3 just received a kernel panic from migrating a VPS using TUN. Next time it happens I'll take a screenshot. Back to 92.2 I go.

Subject: Re: TUN causing instability.
Posted by KuJoe on Thu, 29 Mar 2012 04:48:22 GMT
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Kernel panic #2. Screenshot attached.

File Attachments
1) 004.png, downloaded 465 times