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Subject: Performance problems on heavily-loaded VE  
Posted by [seanfulton](#) on Wed, 17 Sep 2008 19:09:16 GMT  
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We recently moved our busy, spam-fighting mail server from a dual-XEON machine with 2 G of RAM to a CentOS-4 VE on an Intel Dual Core machine with 4 G of RAM.

At the time of the move, we had two Windows nodes running on the machine with Xen, but after NUMEROUS kernel crashes I ditched the XEN kernel and am now just using the 2.6.18-53.1.19.el5.028stab053.14PAE kernel and have not had any crashes.

In any event, there are only two VEs running on this machine; one is a dev VE with one person using it as an FTP source and next to no activity. The other is the mail VE.

During the move we generated a HUGE mail spool of mostly spam. What I am seeing now is that whenever the system load climbs above say 4 or so within the VE, it effectively stops responding to POP/IMAP/SMTP connections. The connection opens, but the appropriate service just doesn't come up. Usually this is when sendmail starts trying to process that backed up mail queue.

What I find strange is that on the dual XEON machine with less RAM, we had no problems even as the load climbed to 20 or above. We only started having connection problems when the load got up around 40 or so.

I've tuned everything I can think of and the mail VE has effectively all of the resources available. `/proc/user_beancounters` shows no failures, and the VE shows 4 G of RAM.

Has anyone else experienced anything like this or is able to point me in a direction? I was thinking that \*perhaps\* if the system load is due to processing the mail spool and that once we clear that out, it will be fine, but I am concerned.

We're currently running more than 50 other VEs on other machines in all sorts of configuration with no problems, but those are mainly web servers with static and dynamic content, and rarely push that kind of load.

Any ideas or pointers would be appreciated.

Oh yes, running apps inside the VE are sendmail, cyrus-imapd, spamassassin, spamass-milter, saslauthd.

sean

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Subject: Re: Performance problems on heavily-loaded VE  
Posted by [tomp](#) on Wed, 17 Sep 2008 21:10:44 GMT  
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Have you looked at your /proc/user\_beancounters to see if you are hitting any limits in the container?

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Subject: Re: Performance problems on heavily-loaded VE  
Posted by [seanfulton](#) on Wed, 17 Sep 2008 21:13:22 GMT  
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I did check--none. No messages in /var/log/messages or dmesg either.

sean

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Subject: Re: Performance problems on heavily-loaded VE  
Posted by [piavlo](#) on Thu, 18 Sep 2008 09:35:33 GMT  
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Can the VE be stoped/restarted with vzctl after the problems begin? If the POP/IMAP/SMTP daemons be restarted insive VE do they resume to work ok?  
Do you have any nfs mount in VE? What is the state of the POP/IMAP/SMTP daemon on VE? Maybe they are stuck on IO in D state?  
try to strace/lsof them.

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Subject: Re: Performance problems on heavily-loaded VE  
Posted by [seanfulton](#) on Thu, 06 Nov 2008 16:23:55 GMT  
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piavlo wrote on Thu, 18 September 2008 05:35 Can the VE be stoped/restarted with vzctl after the problems begin? If the POP/IMAP/SMTP daemons be restarted insive VE do they resume to work ok?  
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The VE can be restarted, but restarting the daemons inside the VE also works. There is no NFS inside the VE. The only thing I can find is that during the time when they hang, the sendmail processes are stuck but not in the D state, they seem to be running from all appearances. Also, this happens while we are running vzdump on the HN. Testing during the last few weeks has proven that this problem goes away if we don't run vzdump. (compress/no compress doesn't matter).

The thing that is strange is that when the vzdump process completes, everything stays hung in the VE, it never returns to normal.

There is another thread on this topic here:

[http://forum.openvz.org/index.php?t=tree&goto=33745& &srch=IO+activity#msg\\_33745](http://forum.openvz.org/index.php?t=tree&goto=33745& &srch=IO+activity#msg_33745)

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