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Subject: [kernel: Out of socket memory] Is there a solution?

Posted by [arghbis](#) on Fri, 07 Dec 2007 16:34:03 GMT

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hi folks,

I'm running openVZ on a server (6Go RAM, dual gigabit net devices, bixon quadcore). The server supports a high load and i've a lot of "kernel: Out of socket memory" in syslog (at least 10/minute).

I've googled around to find solutions to this issue and, despite the modifications i made, the errors are still there.

here is my tcp config from sysctl

```
net.ipv4.tcp_slow_start_after_idle = 1
net.ipv4.tcp_workaround_signed_windows = 0
net.ipv4.tcp_base_mss = 512
net.ipv4.tcp_mtu_probing = 0
net.ipv4.tcp_abc = 0
net.ipv4.tcp_congestion_control = bic
net.ipv4.tcp_tso_win_divisor = 3
net.ipv4.tcp_moderate_rcvbuf = 1
net.ipv4.tcp_no_metrics_save = 1
net.ipv4.tcp_max_tw_buckets_ub = 66144
net.ipv4.tcp_max_tw_kmem_fraction = 384
net.ipv4.tcp_low_latency = 0
net.ipv4.tcp_frto = 0
net.ipv4.tcp_tw_reuse = 1
net.ipv4.tcp_adv_win_scale = 2
net.ipv4.tcp_app_win = 31
net.ipv4.tcp_rmem = 4096      87380  16777216
net.ipv4.tcp_wmem = 4096      65536  16777216
net.ipv4.tcp_mem = 16777216   16777216   16777216
net.ipv4.tcp_dsack = 0
net.ipv4.tcp_ecn = 0
net.ipv4.tcp_reordering = 5
net.ipv4.tcp_fack = 1
net.ipv4.tcp_orphan_retries = 0
net.ipv4.tcp_max_syn_backlog = 1024
net.ipv4.tcp_rfc1337 = 0
net.ipv4.tcp_stdurg = 0
net.ipv4.tcp_abort_on_overflow = 0
net.ipv4.tcp_tw_recycle = 1
net.ipv4.tcp_syncookies = 1
net.ipv4.tcp_fin_timeout = 20
net.ipv4.tcp_retries2 = 15
net.ipv4.tcp_retries1 = 3
```

```
net.ipv4.tcp_keepalive_intvl = 75
net.ipv4.tcp_keepalive_probes = 9
net.ipv4.tcp_keepalive_time = 1000
net.ipv4.tcp_max_tw_buckets = 360000
net.ipv4.tcp_max_orphans = 131072
net.ipv4.tcp_synack_retries = 5
net.ipv4.tcp_syn_retries = 5
net.ipv4.tcp_retrans_collapse = 1
net.ipv4.tcp_sack = 0
net.ipv4.tcp_window_scaling = 0
net.ipv4.tcp_timestamps = 0
```

uname -a :

Linux ns6812.ovh.net 2.6.18-ovz-028stab048.1-enterprise #1 SMP Thu Nov 1 19:34:25 CET 2007 i686 GNU/Linu

If anybody has a clue to solve this problem, thanks to him!

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [ugob](#) on Fri, 07 Dec 2007 21:14:00 GMT

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I'm having a similar problem...

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [arghbis](#) on Tue, 11 Dec 2007 07:13:06 GMT

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up!

no one has an idea about this problem?

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [gblond](#) on Tue, 11 Dec 2007 10:55:32 GMT

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What about failcnt for numtcpsock in /proc/user\_beancounters ?

Also check "sysctl net.ipv4.tcp\_mem"

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [arghbis](#) on Tue, 11 Dec 2007 11:04:11 GMT

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no failcount (i have a script that check beancounters and upgrade them dynamically).

```
net.ipv4.tcp_mem = 2388608    2388608 16777216
```

do you see something wrong?

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [gblond](#) on Wed, 12 Dec 2007 10:19:39 GMT

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No, I think it is enough.

Try to increase twice

```
sysctl net.ipv4.tcp_max_orphans
```

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [arghbis](#) on Fri, 14 Dec 2007 07:14:02 GMT

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i have increased max\_orphans and wait a day to see the changes. As a results, i might have fewer errors, but still get plenty of them.

I also notice an other error message :kernel: TCP: Treason uncloaked! Peer xxx.xxx.xxx.xxx:29434/80 shrinks window 3922039675:3922045515. Repaired

i've ggogled around to check this message, but the answers are a bit confusing for me (some people say that it's not a problem, some that it is a huge one)

thanks for your help

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [gblond](#) on Fri, 14 Dec 2007 08:46:12 GMT

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Problem probably is in next:

Number of orphaned socket is limited to numtcpsock/4. If number is more then warning message printed (but there isn't failcnt!)

So you can try to increase numtcpsock.

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [arghbis](#) on Fri, 14 Dec 2007 08:56:23 GMT

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but the problem occurs in the HN syslog? i can't increase its numtcpsock, can i?

Your explanation is very interesting since it semms logical, but for a VE.

Thanks for all

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [gblond](#) on Fri, 14 Dec 2007 09:31:39 GMT

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I told about message "kernel: Out of socket memory"

you can increase numtcpsock by:

```
vzctl set $VENUM --numtcpsock $WANTED_NUM_TCPSOCK
```

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [arghbis](#) on Fri, 14 Dec 2007 09:39:11 GMT

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sure, i know how to increase numtcpsock.

My point was : How numtcpsock (and so, orphans) on vps can induce "kernel: Out of socket memory" messages on the hardware node, despite this message does not appear on any VPS?

thanks

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [vaverin](#) on Fri, 14 Dec 2007 10:02:19 GMT

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Ok,

we will change the message and add VE number and number of orphans.

[http://bugzilla.openvz.org/show\\_bug.cgi?id=760](http://bugzilla.openvz.org/show_bug.cgi?id=760)

thank You,  
Vasily Averin

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Subject: Re: [kernel: Out of socket memory] Is there a solution?  
Posted by [arghbis](#) on Fri, 14 Dec 2007 10:07:11 GMT  
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ok! thanks

so if i understand correctly, the HN is monitoring the orphans for each VE and reports the errors in its own syslog. Is there a way to know which VE is reporting these errors?

Maybe i will wait for the feature you mention

thanks

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Subject: Re: [kernel: Out of socket memory] Is there a solution?  
Posted by [vaverin](#) on Fri, 14 Dec 2007 10:17:37 GMT  
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net/ipv4/tcp\_timer.c::tcp\_out\_of\_resources()

```
....  
    if (ub_too_many_orphans(sk, orphans)) {  
        if (net_ratelimit())  
            printk(KERN_INFO "Out of socket memory\n");  
        We can extract VEID from struct  
sock *sk.
```

Thank you,  
Vasily Averin

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Subject: Re: [kernel: Out of socket memory] Is there a solution?  
Posted by [ittec](#) on Sat, 03 May 2008 10:12:17 GMT  
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Just a little question, when you speak about sysctl setup is about sysctl.conf on Hardware Node?  
When you edit sysctl.conf on HN are you editing general values to all server?

Im a confuse. I don't know if I must change the values from HN or each VE.

Thanks

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [gblond](#) on Sun, 04 May 2008 07:28:16 GMT

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You have to set sysctl net.ipv4.tcp\_max\_orphans in VE0. This sysctl will effect to all VEs.

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Subject: Re: [kernel: Out of socket memory] Is there a solution?

Posted by [ittec](#) on Mon, 05 May 2008 07:57:25 GMT

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thanks gblond

I did some changes in systl.conf setup to avoid orphan problems and it seems that works.

Bye.

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