
Subject: Memory overflow in an OpenVZ VPSPosted by [samuli.seppanen](#) on Wed, 26 Sep 2007 07:31:54 GMT[View Forum Message](#) <> [Reply to Message](#)

Hello everybody!

I'm having problems with OpenVZ memory management. I have (probably) read all the Wiki articles there are that touch that subject, and browsed through the mailing list archives to no avail.

Most of my OpenVZ VPS'es work just fine after a bit of fiddling, but one of them is misbehaving constantly. It always runs out of memory, no matter how much I give it. It is running 10 instances of a same server to give better interactive responsiveness. I was just wondering if the server program is leaking memory and causing this erratic behavior, or if there is something wrong with my OpenVZ VPS's configuration.

The physical server runs only this one VPS. The hardware node has 2GB of RAM plus 2GB of swap. The VPS is given roughly 3.5GB of that if available (privvmpages limit). It is guaranteed 2.5GB (vmguarpages barrier). This is FAR more than the server software in question needs, but still it occasionally (and predictably) runs out of memory.

The strange thing about the VPS is that the HELD values in oomguarpages and privvmpages are `_much_` lower than the MAXHELD values - almost triple. There should be no usage peaks that should cause this kind of asymmetry, unless an instance of the server software goes amok.

The VPS's resource information is shown below. The parameters are not optimized, as you can see, but that not my biggest problem right now :). So can you see anything wrong with these settings, or should I take a look at the server software that is running on the VPS?

```
[root@VPS_NODE ~]# cat /proc/user_beancounters
```

```
Version: 2.5
```

uid resource	held	maxheld	barrier	limit	failcnt	
103: kmemsize	19265157	40765738	183079731	201387704		0
lockedpages	0	0	8939	8939	0	
privvmpages	383368	930126	917504	930000	153	
shmpages	21647	24239	31099	31099	0	
dummy	0	0	0	0	0	
numproc	229	524	8000	8000	0	
physpages	236810	485688	0	2147483647	0	
vmguarpages	0	0	655360	2147483647	0	
oomguarpages	382472	874046	310999	2147483647		0
numtcpsock	532	793	8000	8000	0	
numflock	18	594	1000	1100	0	
numpty	1	4	512	512	0	

```

numsiginfo      0    39   1024   1024    0
tcpndbuf       3524644 4236356 28258577 61026577 0
tcpvbuf        3530300 6528712 28258577 61026577 0
othersockbuf   190060 1737340 14129288 46897288 0
dgramrcvbuf    0    41836 14129288 14129288 0
numothersock   204    1169   8000   8000    0
dcachesize     0      0 39977755 41177088 0
numfile        11106  22346  71488  71488   0
dummy          0      0     0     0     0
dummy          0      0     0     0     0
dummy          0      0     0     0     0
numiptent      10     10    200    200     0

```

```
[root@HOST_NODE ~]# free
```

```

      total    used    free   shared  buffers   cached
Mem:   2073344 2017716   55628     0    66928   954828
-/+ buffers/cache:  995960 1077384
Swap:  2031608  586508 1445100

```

Anyways, thanks for a great Open Source virtualization project!