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Subject: Committed\_AS = 4TB

Posted by [Jan Tomasek](#) on Mon, 07 May 2007 13:27:08 GMT

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Hello,

my system have Committed\_AS: 4253406264 kB, it is not causing any problems (except of munin which is drawing just line on zero). I found this explanation:

```
# Committed_AS: An estimate of how much RAM you would need to make a
99.99% guarantee that there never is OOM (out of memory) for this
workload. Normally the kernel will overcommit memory. That means, say
you do a 1GB malloc, nothing happens, really. Only when you start USING
that malloc memory you will get real memory on demand, and just as much
as you use. So you sort of take a mortgage and hope the bank doesn't go
bust. Other cases might include when you mmap a file that's shared only
when you write to it and you get a private copy of that data. While it
normally is shared between processes. The Committed_AS is a guesstimate
of how much RAM/swap you would need worst-case.
```

<http://www.redhat.com/advice/tips/meminfo.html>

I'm having troubles to identify who allocated that much memory.

```
> top - 15:16:17 up 29 days, 5:02, 2 users, load average: 7.01, 6.83, 6.66
> Tasks: 460 total, 7 running, 452 sleeping, 1 stopped, 0 zombie
> Cpu(s): 0.2%us, 1.4%sy, 76.0%ni, 22.4%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
> Mem: 8303004k total, 8146708k used, 156296k free, 334560k buffers
> Swap: 24579440k total, 196k used, 24579244k free, 6876788k cached
>
> PID USER      PR NI VIRT  RES SHR S %CPU %MEM    TIME+ COMMAND
>
> 16430 semik    10 -10 1215m 1.0g 1.0g S    2 13.1 133:56.51 vmware-vmx
>
> 10950 root     18   0 1199m 66m 5784 S    0  0.8  0:39.85 java
>
> 16463 semik    7 -10 533m 428m 410m S    1  5.3  58:29.35 vmware-vmx
>
> 16446 semik    5 -10 391m 280m 266m S    5  3.5 245:58.27 vmware-vmx
>
> 2575 www-data  21   0 225m 2936 1448 S    0  0.0  0:00.00 apache2
>
> 2577 www-data  21   0 225m 2928 1452 S    0  0.0  0:00.00 apache2
>
> 11128 25      24   0 96916 10m 2068 S    0  0.1  0:02.29 named
```

rest of process have virt. mem size <<100MB.

My system has 8GB of physical RAM. Runing 2.6.18-028stab023 and VMware Server - that might be source but... VMware workstation is not causing this (tested on other system). Meminfo:

```
staj# cat /proc/meminfo
MemTotal:    8303004 kB
MemFree:     154140 kB
Buffers:     334616 kB
Cached:      6877772 kB
SwapCached:   0 kB
Active:      4035760 kB
Inactive:    3536216 kB
HighTotal:   7470840 kB
HighFree:    132144 kB
LowTotal:    832164 kB
LowFree:     21996 kB
SwapTotal:   24579440 kB
SwapFree:    24579244 kB
Dirty:       732 kB
Writeback:   0 kB
AnonPages:   359868 kB
Mapped:      1814360 kB
Slab:        464916 kB
PageTables:  9756 kB
NFS_Unstable: 0 kB
Bounce:      0 kB
CommitLimit: 28730940 kB
Committed_AS: 4253406264 kB
VmallocTotal: 118776 kB
VmallocUsed:  42692 kB
VmallocChunk: 75716 kB
```

and vzmemcheck:

```
> staj:/etc# vzmemcheck -v
> Output values in %
> veid      LowMem  LowMem  RAM MemSwap MemSwap Alloc Alloc Alloc
>           util commit util  util commit util  commit limit
> 233003    0.15   1.31   0.03   0.01   0.09   0.01   0.09   0.66
> 233250    1.26   11.88   0.49   0.12   0.20   0.40   0.20   38.39
> 233104    0.14   10.67   0.03   0.01   0.18   0.01   0.18   38.37
> 233103    0.17   10.67   0.03   0.01   0.18   0.01   0.18   38.37
> 233107    0.17   10.67   0.03   0.01   0.18   0.01   0.18   38.37
> 233106    0.16   10.67   0.03   0.01   0.18   0.01   0.18   38.37
> 233105    0.16   10.67   0.03   0.01   0.18   0.01   0.18   38.37
> 233102    0.18   10.67   0.03   0.01   0.18   0.01   0.18   38.37
> 233101    0.18   10.67   0.03   0.01   0.18   0.01   0.18   38.37
```

```
> 233009  0.42  9.13  0.11  0.03  0.17  0.05  0.17  38.36
> 233249  0.92  10.67  0.60  0.15  0.18  1.52  0.18  38.37
> 222119  0.44  10.67  0.12  0.03  0.18  0.05  0.18  38.37
> 233008  1.22  9.13  1.01  0.26  0.17  3.85  0.17  38.36
> 233006  1.11  10.67  1.34  0.34  0.18  0.37  0.18  38.37
> 222121  0.17  9.13  0.03  0.01  0.17  0.01  0.17  38.36
> 192002  0.24  4.64  0.04  0.01  0.12  0.01  0.12  38.31
> -----
> Summary: 7.09 151.91 3.97 1.00 2.73 6.35 2.73 576.18
```

Does anybody know how to explain that 4TB?

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---

Jan Tomasek aka Semik  
<http://www.tomasek.cz/>

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Subject: Re: Committed\_AS = 4TB

Posted by [Jan Tomasek](#) on Tue, 08 May 2007 08:38:02 GMT

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Vasily Tarasov wrote:

> For me it seems to be strange too... Can you, please, post the output  
> of /proc/user\_beancounters here in order to see which VE allocates so  
> much memory.

It's loooong. :) I put it on web:

<http://staff.cesnet.cz/~semik/HWnodeUBC>

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Jan Tomasek aka Semik  
<http://www.tomasek.cz/>

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Subject: Re: Committed\_AS = 4TB

Posted by [Vasily Tarasov](#) on Tue, 08 May 2007 08:46:02 GMT

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Thanks,  
Vasily.

On Mon, 2007-05-07 at 15:27 +0200, Jan Tomasek wrote:

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> > 233107    0.17  10.67   0.03  0.01  0.18  0.01  0.18  38.37
> > 233106    0.16  10.67   0.03  0.01  0.18  0.01  0.18  38.37
> > 233105    0.16  10.67   0.03  0.01  0.18  0.01  0.18  38.37
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