
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 draving 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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