Subject: privvmpages vs oomguarpages
Posted by [mose](#) on Mon, 05 Mar 2012 17:42:44 GMT

Debian 6.0.4
2.6.32-5-openvz-amd64
vzctl 3.0.24
RAM: 48GB
Swap: 50GB

I am seeing numbers for privvmpages and oomguarpage that don't make sense. According to

   wiki.openvz.org/Setting_UBC_parameters

privvmpages is the allocated but possibly unused memory and swap. oomguarpage is the allocated memory and swap. That would imply that if the oomguarpage maxheld reaches the privvmpages barrier, then things will run out of memory (assuming the host has sufficient memory for the container as a whole).

There are times when memory requirements seem to double, and I have not been able to catch when it happens, yet. privvmpages skyrockets, and processes cannot be forked. oomguarpage, on the other hand, is about 1/10 the size of privvmpages.

Is my understanding is correct? If so, what kind of situation would cause a huge amount of memory or swap to be allocated but never used (i.e., privvmpages maxheld of 7309502 but oomguarpage maxheld of only 863096)? Why would that cause processes to run out of memory if oomguarpage maxheld has not reached privvmpages barrier (and there is plenty of memory on HN)? Thanks for your insight to this mystery.

Version: 2.5

uid	resource	held	maxheld	barrier	limit	failcnt
260:	kmemsize	341018600	343188622	536870912	603979776	0
	lockedpages	0	0	256	256	0
	privvmpages	4242756	7309502	6291456	6815744	52
	shmpages	10974	49876	262144	262144	0
	dummy	0	0	0	0	0
	numproc	1054	1058	3072	3072	0
	physpages	862616	863096	0	9223372036854775807	0
	vmguarpages	0	0	131072	9223372036854775807	0
	oomguarpage	862616	863096	131072	9223372036854775807	0
	numtcpsock	5865	6261	16384	16384	0
	numflock	1	2	188	206	0
	numpty	1	1	16	16	0
	numsiginfo	0	323	1024	1024	0
	tcpsndbuf	24281872	28622640	41943040	62914560	0
	tcprcvbuf	1047400	1126480	8388608	29360128	0
	othersockbu	3511440	4558040	8388608	18874368	0

```
dgramrcvbuf      0     4360   262144          262144      0
numothersoc   2143   2386    4096            4096     0
dcachesize   6801366  7133412  10485760         15728640      0
numfile      15067   16100    40960           40960     0
dummy         0      0      0          0     0
dummy         0      0      0          0     0
dummy         0      0      0          0     0
numiptent      30     30     128           128     0
```