Subject: Memory Allocation issues

Posted by Boetsi on Mon, 23 Nov 2009 16:29:59 GMT

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These are the BCs of our single container:

```
uid resource
               held
                     maxheld barrier
                                        limit failcnt
3033: kmemsize
                   36955651 75967463 178968985 196865883
                                                                  0
    lockedpages
                     0
                            0
                                 8738
                                         8738
                                                   0
    privvmpages
                   711902
                           1428852
                                     1415504
                                               1515504
                                                         4490741
                           8352
                                   50391
                                            50391
    shmpages
                   3216
                                                       0
    dummy
                    0
                          0
                                 0
                                        0
                                              0
    numproc
                   554
                          1260
                                  0008
                                          8000
                                                    0
                                        0 2147483647
    physpages
                  299162
                           584303
                                                          0
                                625000 2147483647
    vmguarpages
                      0
                             0
                                                        0
    oomquarpages
                    386470
                             638714
                                      1415504 2147483647
                                                               0
    numtcpsock
                     86
                           315
                                  8000
                                           8000
    numflock
                   277
                          373
                                 1000
                                          1100
                                                   0
    numpty
                   3
                          8
                               512
                                       512
                                                0
                    1
                          12
    numsiginfo
                                1024
                                         1024
    tcpsndbuf
                3907620
                          5395756 26888328 59656328
                                                            0
    tcprcvbuf
                1478312
                          3401544 26888328 59656328
                                                            0
                                                             0
    othersockbuf
                  769392
                           2002428 13444164 46212164
                         50184 13444164 13444164
    dgramrcvbuf
                     0
                                                         0
                     671
    numothersock
                            1594
                                    8000
                                            8000
                                                      0
    dcachesize
                 2108694
                           2759840 39082998 40255488
                                                             0
    numfile
                 14758
                         42480
                                  69888
                                           69888
    dummy
                    0
                          0
                                 0
                                        0
                                              0
    dummy
                    0
                          0
                                 0
                                        0
                                              0
    dummy
                    0
                                        0
                                              0
                          0
                                 0
    numiptent
                   10
                          10
                                 200
                                         200
                                                  0
```

As you can see, alot of failcounts on our privvmpages. Some processes do get killed and to my knowledge, I can't go any higher on the pages.. As I'm pretty new to this kind of stuff, what am I doing wrong?

The HN has 3,2GB of RAM and about 3,5GB of swap...

Subject: Re: Memory Allocation issues

Posted by kir on Mon, 23 Nov 2009 17:28:20 GMT

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privvmpages is allocated (but not always used) memory. Many apps (such as Java) tend to allocate much more than they actually use.

Rules (constraints) of privympages allocation for multiple containers are described here: http://wiki.openvz.org/UBC_systemwide_configuration#Allocate d_memory

You can use vzmemcheck to see if you are on the safe side.

Subject: Re: Memory Allocation issues

Posted by Boetsj on Tue, 24 Nov 2009 08:14:43 GMT

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Well, on our node there's only one container. I want it to give the maximum amount of resources available. I already calculated the privympages and oomguarpages to 0.85% of the system resources but it still seem to swap a lot AND the average cpu wait is around 30%. Is this normal?

Subject: Re: Memory Allocation issues

Posted by kir on Tue, 24 Nov 2009 10:36:28 GMT

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privvmpages can be set up to RAM+swap, i.e. if you have 4G RAM and 8G swap you can set privympages to about 12G, sometimes even more.

In other words, if you only have one container (and the host system) your privympages is way too low.