Subject: Fatal resource shortage: privvmpages
Posted by marsvin on Mon, 11 Dec 2006 18:39:56 GMT
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Hi all,

I'm a bit of a newbie getting started for the first time installing OpenVZ in a test environment.

First off my machine is a dual proc dual core Operton (AMD64) platform with 4GB of ram. My operating system is Debian Sarge 3.1.
I haven't installed anything other than the OS, ssh and OpenVZ so far so this is as clean an install as I can get. OpenVZ and its kernel were installed using apt. This is the one I'm using now:

me@server:~$ uname -a
Linux server 2.6.9-023stab032.1-ovz-amd64-smp #1 SMP Fri Oct 27 13:41:52 CEST 2006 x86_64 GNU/Linux

To install the virtual machine I followed this tutorial: http://wiki.openvz.org/Installation_on_Debian and then downloaded the Debian64 template from here:
http://openvz.org/download/template/cache/

Oh I used vps.basic.conf as the configuration. I did find a 64 bit smp config here http://download.openvz.org/kernel/devel/026test015.1/configs / but after I installed it and tried to start the virtual machine I ended up with 2 pages of errors. (if needed I can try again and post the errors here.)

With the default config installation was a breeze but when I finished and rebooted again, right before the login prompt showed up I got this error message:

Dec 11 19:09:51 localhost kernel: Fatal resource shortage: privvmpages, UB 101.

Although there is nothing installed on the virtual machine yet (or on the base OS for that matter.)

I'm assuming this won't make my system any more stable so I'd like to find out what's causing this problem and how to fix it but I'm not sure where to start.

I did find several posts about this error on this board but they all seemed to indicate mis-use of memory which shouldn't be a problem in my system (yet.)

Any thoughts would be much appreciated and if you got here thanks for reading this rather long post

Subject: Re: Fatal resource shortage: privvmpages
Posted by rickb on Mon, 11 Dec 2006 19:18:16 GMT
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First, check what privvmpages is set to currently:

#cat /proc/user_beancounters

under the VEID, you will see a lines like this:

```
   889489: kmemsize       1420887    2768219   60252800  121278080        0
           lockedpages          0          0        550        550        0
           privvmpages       8622      18280     500000     750000        0
```

In this case, privvmpages is set to 500000:750000 and has no failcounts. Your probably will have failcounts greater then 0. To raise privvmpages, use this command:

vzctl set VEID --privvmpages XXXXX:YYYYY --save

This will set VEID privvmpages to XXXXX:YYYYY. You can use mine to at least get your VE going and then tune them later.

If this doesn't help, use these steps so someone can help you with one reply:

0) reboot your hardware node if possible and no production services (just to clear beancounters)
1) cat /proc/user_beancounters (save it)
2) simulate problem
3) cat /proc/user_beancounters (save it)

Paste the full output of beancounters here!

Rick

Subject: Re: Fatal resource shortage: privvmpages
Posted by marsvin on Mon, 11 Dec 2006 20:14:51 GMT
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Thanks a lot for replying so quickly

The increased vmpages fixed the problem. The error was popping up at hardware boot btw, before I did anything at all, so there was no "before" counter.

I'm seeing a new error pop up though, numproc is listing a failcnt of 1. I have 5 processes currently running in the VPS with maxheld, barrier and limit at 65.

After toying around a bit (logging in with ssh, vim'ing some files and so on) it doesn't seem to increase.

Here's the list at boot.
By the way, is that limit set for physpages, vmguarpages and oomguarpages sane?

```
Version: 2.5
       uid  resource                     held              maxheld              barrier                limit              failcnt
       101: kmemsize                   445083              2081471              5242880              5592405
             0
            lockedpages                    0                    0                   32                   32                    0
            privvmpages                 1146                146808               500000               750000
             0
            shmpages                       0                   65                 8192                 8192                    0
            dummy                          0                    0                    0                    0                    0
            numproc                        5                   65                   65                   65                    1
            physpages                    485                 1887                    0  9223372036854775807
             0
            vmguarpages                    0                    0                 6144  9223372036854775807
             0
            oomguarpages                 485                 1887                 6144  9223372036854775807
             0
            numtcpsock                     1                    2                   80                   80                    0
            numflock                       1                    2                  100                  110                    0
            numpty                         0                    0                   16                   16                    0
            numsiginfo                     0                    2                  256                  256                    0
            tcpsndbuf                      0                    0               319488               524288                    0
            tcprcvbuf                      0                    0               319488               524288                    0
            othersockbuf                2344                 3664               132096               336896
             0
            dgramrcvbuf                    0                    0               132096               132096                    0
            numothersock                   1                    4                  120                  120                    0
            dcachesize                     0                    0              1048576              1097728                    0
            numfile                      121                 1105                 2048                 2048                    0
            dummy                          0                    0                    0                    0                    0
            dummy                          0                    0                    0                    0                    0
            dummy                          0                    0                    0                    0                    0
            numiptent                     10                   10                  128                  128                    0
```

And here it is after some action:

```
Version: 2.5
       uid  resource                     held              maxheld              barrier                limit              failcnt
       101: kmemsize                   433380              2081471              5242880              5592405
             0
            lockedpages                    0                    0                   32                   32                    0
            privvmpages                 1147                146808               500000               750000
             0
            shmpages                       0                  656                 8192                 8192                    0
            dummy                          0                    0                    0                    0                    0
            numproc                        5                   65                   65                   65                    1
```

physpages	486	1975	0	9223372036854775807	0
vmguarpages	0	0	6144	9223372036854775807	0
oomguarpages	486	1975	6144	9223372036854775807	0
numtcpsock	1	2	80	80	0
numflock	1	2	100	110	0
numpty	0	1	16	16	0
numsiginfo	0	2	256	256	0
tcpsndbuf	0	9376	319488	524288	0
tcprcvbuf	0	4392	319488	524288	0
othersockbuf	2344	7920	132096	336896	0
dgramrcvbuf	0	8488	132096	132096	0
numothersock	1	6	120	120	0
dcachesize	0	0	1048576	1097728	0
numfile	119	1105	2048	2048	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
numiptent	10	10	128	128	0