
Subject: Re: Optimizing resources from /proc/user_beancounters

Posted by [JR Richardson](#) on Fri, 14 Oct 2011 21:35:42 GMT

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> I know this is has probably been discussed ad nauseum, but I haven't found
> what I'm looking for yet, so I thought I would ask here.

>
> I have been running OpenVZ for a few years, but in the last couple of weeks,
> I have noticed over the past couple of weeks that several VMs were getting
> out of spec settings, mainly dcachesize growing too large.

>
> These VMs started on a Debian openvz box, and as my virtual infrastructure
> grew, I started using a pair of proxmox-ve machines (which is Debian-lenny
> based as well), which are clustered.

>
> I have 8 VMs that were created over time, some on 32-bit host machines, some
> on 64-bit. Thus, some have /proc/user_beancounters that look like:

```
>  
> 1: kmemsize          13775736  
> 15028224          48811846          51254098          63446  
>   lockedpages              0  
> 447          393216          393216          0  
>   privvmpages          15152  
> 105895          426752          439252          0  
>   shmpages              648  
> 1304          21504          21504          0  
>   dummy                  0  
> 0          0          0          0  
>   numproc                47  
> 72          240          240          0  
>   physpages          166345  
> 425143          0          2147483647          0  
>   vmguarpages              0  
> 0          426752          2147483647          0  
>   oomguarpages          6374  
> 97683          426752          2147483647          0  
>   numtcpsock            44  
> 48          360          360          0  
>   numflock              1  
> 7          188          206          0  
>   numpty                  0  
> 2          16          16          0  
>   numsiginfo            1  
> 27          256          256          0  
>   tcpsndbuf          525744  
> 1026352          4212558          6014798          0  
>   tcprcvbuf          524552  
> 3052984          4212558          6014798          0
```

```

> othersockbuf          46240
> 65808      1126080      2097152      0
> dgramrcvbuf          0
> 101600      262144      262144      0
> numothersock         75
> 82          360          360          0
> dcache size      9997638
> 10000000      8000000      10000000      0
> numfile            508
> 695          9312          9312          0
> dummy              0
> 0              0          0          0
> dummy              0
> 0              0          0          0
> dummy              0
> 0              0          0          0
> numiptent           20
> 20           128          128          0
>
> While others have effectively unlimited barrier and limit settings:
>
> 7: kmemsize          93292551      107253760
> 9223372036854775807 9223372036854775807      0
> lockedpages          0
> 16          393216      393216          0
> privvmpages          299033
> 413214      524288      536788          0
> shmpages              68          724
> 9223372036854775807 9223372036854775807      0
> dummy              0
> 0              0          0          0
> numproc              86
> 108          1024      1024          0
> physpages           321589
> 496217          0 9223372036854775807      0
> vmguarpages          0
> 0          524288 9223372036854775807      0
> oomguarpages         155305
> 180405      524288 9223372036854775807      0
> numtcpsock           13          17
> 9223372036854775807 9223372036854775807      0
> numflock              3          9
> 9223372036854775807 9223372036854775807      0
> numpty              0
> 2           255          255          0
> numsiginfo           1
> 15          1024      1024          0
> tcpsndbuf           226720      329312

```

```

> 9223372036854775807 9223372036854775807 0
> tcprcvbuf 277072 5662864
> 9223372036854775807 9223372036854775807 0
> othersockbuf 43928 66680
> 9223372036854775807 9223372036854775807 0
> dgramrcvbuf 0 5648
> 9223372036854775807 9223372036854775807 0
> numothersock 63 69
> 9223372036854775807 9223372036854775807 0
> dcachesize 88045648 101016538
> 9223372036854775807 9223372036854775807 0
> numfile 360 605
> 9223372036854775807 9223372036854775807 0
> dummy 0
> 0 0 0 0
> dummy 0
> 0 0 0 0
> dummy 0
> 0 0 0 0
> numiptent 20 20
> 9223372036854775807 9223372036854775807 0

```

> I have three questions. First, I know that leaving everything unlimited is a quick path to running out of resources on the host machine. That said, I've been having troubles recently with the VMs with "normal" settings. It started out with dcachesize going out of spec, which, when I adjusted it, within an hour, I started getting out of memory errors, requiring me to up the kmemsize...This then caused problems on another "normal" VM, and so forth.

> As I said, I know setting everything to unlimited is probably not recommended, so what is the recommended way to set the proper values for user_beancounters? Every time I change values in user_beancounters, something else comes unglued, except for the ones that have unlimited kmemsize and dcachesize.

> Is there a tool to set up the values based on the use of the particular VM?
> Is there any more information I need to provide?

> Thanks,
> --b

Try using vzsplint to segment your VE's equally, start there and increase/decrease resources per the demand of each VE. Once you adjust your config conf files, use vzcfgvalidate to ensure your beans are adjusted properly.

Good luck.

JR

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