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
> dcachesize 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 vzsplit 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 propperly.

Good luck.

JR
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Engineering for the Masses