
Subject: ***SOLVED*** Memory usage query
Posted by [arpad](#) on Sat, 28 Apr 2007 09:30:05 GMT
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Hi!

I think I'm a little bit confused. I used to set privvmpages to control the memory usage of a VE like this:

```
vzctl set <VEID> --privvmpages 320M:320M --save
```

Now this VE exceeded this limit .I checked the current memory usage and I there is some differences between the memory usage showed by `cat /proc/user_beancounters` and the summarized memory usage from the output of `ps vax`.

The `/proc/user_beancounters` says there is 72807 pages allocated it's ~284MB (with 4K/page). The sum of the `ps vax`'s RSS field gives me just ~237MB.

Why the difference is so big? There are only approx. 25 process on this node.

How can I set that the node can use all of the 320M what I planned?

Thanks,

Arpad

Subject: Re: Memory usage
Posted by [rickb](#) on Sat, 28 Apr 2007 10:32:15 GMT
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privvmpages is not memory in use, its allocated memory. you can `malloc()` your heart out, and throw your privvmpages thru the ceiling, without copying any bits to your ram, rss. check the UBC wiki page for privvmpages and physpages definitions.

I wouldn't set privvm that low, 75% of the HN's physical memory is a good estimate, assuming you have more then a few VEs on the node.

Subject: Re: Memory usage
Posted by [arpad](#) on Sat, 28 Apr 2007 10:49:17 GMT
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Ok. I think I understand it now.

The privvmpages is for the allocated RAM which can be unused so it's always greater than the

real memory usage. If I limit this option my customers (not all the VE's belongs to me, some are rented to others) get smaller resources than I defined. It's not good behaviour to me.

The physpages is the amount of the used memory. It's always below or equal than the privmpages value. But the manual said this is only accounting parameter. I think there will be no effect if I changed it. IMHO.

What will happen if I set the privmpages to unlimited and the physpages to 320M? It will simulate a machine with 320M RAM (thats my destiny) or it doesn't limits the memory at all?

Thanks,

Arpad

Subject: Re: Memory usage

Posted by [rickb](#) on Sat, 28 Apr 2007 10:54:52 GMT

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If you want to simulate a machine with 320MB of ram, set privvm, vmguar, oomguar all to 320M.

phypages is an accounting parameter, you cannot change it. Because so many applications allocate memory but never use it, the vz architecture has the dual concept of memory utilization-privvm and phys.

Subject: Re: Memory usage

Posted by [arpad](#) on Sat, 28 Apr 2007 11:00:39 GMT

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Thanks. Now it's crystal clear for me.

Arpad
