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## Subject: How To Change the Amount of Memory It Takes to Run A Container?

Posted by [imatwb](#) on Tue, 26 Jul 2011 18:44:26 GMT

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I know I can set the resource limits inside of a container using the following commands before starting the container:

```
vzctl set $CID --physpages 0P:10000P --save
vzctl set $CID --vmguarpages 0P:10000P --save
vzctl set $CID --oomguarpages 0P:10000P --save
```

This does indeed set the resource limits inside the container as shown:

```
Tasks: 16 total, 1 running, 15 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 40000k total, 18220k used, 21780k free, 0k buffers
Swap: 0k total, 0k used, 0k free, 9516k cached
```

However, running the top command from the host (the guy in charge of starting all of the containers) reveals this:

Before starting the container:

```
Tasks: 526 total, 2 running, 524 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.8%us, 0.3%sy, 0.0%ni, 98.8%id, 0.1%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 12156848k total, 3698000k used, 8458848k free, 978368k buffers
Swap: 2064376k total, 0k used, 2064376k free, 1661636k cached
```

After starting the container:

```
Tasks: 556 total, 1 running, 555 sleeping, 0 stopped, 0 zombie
Cpu(s): 2.1%us, 0.1%sy, 0.0%ni, 97.8%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 12156848k total, 4392708k used, 7764140k free, 978368k buffers
Swap: 2064376k total, 0k used, 2064376k free, 2302080k cached
```

So the container takes up about 700,000kb of memory to run (and only 40,000kb of that is actually allocated for it to use)

Is there a way I can decrease the 700,000kb of memory the container needs to run? I want to start 200 containers, but I only have 12 gb of ram. So at 700,000kb each, that's limits me to just 17 containers running total. Please advise. Thanks.

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## Subject: Re: How To Change the Amount of Memory It Takes to Run A Container?

Posted by [Ales](#) on Tue, 26 Jul 2011 20:37:03 GMT

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If you keep your server running long enough, your free RAM will go towards zero pretty quickly whether you create a single VM on it or not. That's the way linux manages RAM - it puts it to good use, instead of keeping it empty.

In this particular case, I think you are misinterpreting the top output. 700000k was not used for a container.

If you look closely, you'll see that top output before starting the container shows "1661636k" as "cached" and top after starting the container shows "2302080k" as "cached".

I'm sure there are numerous articles on the internet on what this means and those will give you a much better and more detailed explanation than I could.

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Subject: Re: How To Change the Amount of Memory It Takes to Run A Container?

Posted by [imatwb](#) on Thu, 28 Jul 2011 20:55:48 GMT

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Solved. Just had to use a smaller openvz template.

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