
Subject: Allocate more RAM to a VPS
Posted by [dragos2](#) on Wed, 02 Sep 2009 09:45:22 GMT
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I would like to allocate more RAM memory to my vps.

Can I allocate more than 800 MB to a vps ? How ?

Thank you

Subject: Re: Allocate more RAM to a VPS
Posted by [kir](#) on Wed, 02 Sep 2009 11:57:26 GMT
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<http://wiki.openvz.org/Category:UBC>

Subject: Re: Allocate more RAM to a VPS
Posted by [dragos2](#) on Wed, 02 Sep 2009 12:47:27 GMT
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kir wrote on Wed, 02 September 2009 14:57<http://wiki.openvz.org/Category:UBC>

Thanks

So what I need is physpages, how big is a ram page ?

For example if I want to allocate 512 MB of RAM how can I use this:

`vzctl set 101 --physpages 512 --save`

?

Subject: Re: Allocate more RAM to a VPS
Posted by [divB](#) on Wed, 02 Sep 2009 14:20:52 GMT
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No.

- 1.) size of a page is dependent on architecture, with i386 usually 4096 bytes
- 2.) This is an auxiliary parameter, not a primary one! You should look instead to oomguarpages, privvmpages.

3.) You need to learn very much! Start with

<http://maxgarrick.com/understanding-openvz-resource-limits/> and then read everything in the link above in the Wiki. Resource management in OpenVZ is very, very complex! And not easy! You need to know how memory management on i386 and Linux works. Otherwise the chance is high to break your configuration leading to unstable system, system hangs and errors which you can't understand.

4.) It's also too complex for me, so I used the following way:

http://forum.openvz.org/index.php?t=tree&goto=37293&#msg_37293

5.) If you change a value, I recommend to validate with `vzcfgvalidate` (which implements the complex formulas in http://wiki.openvz.org/UBC_consistency_check)

Regards,
divB

Subject: Re: Allocate more RAM to a VPS
Posted by [dragos2](#) on Thu, 03 Sep 2009 08:32:10 GMT
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It seems that memory is shared. Now I understand that a container is different in this way compared with traditional virtualization.

But it seems that some companies wants to implement this shared memory model in order to increase the vm density.

Back to my question.

It is an Ubuntu Server 8.04 LTS 64 bit with 4 GB of RAM

```
root@ubu01:~# free -m
```

	total	used	free	shared	buffers	cached
Mem:	3954	3813	140	0	328	2976
-/+ buffers/cache:		508	3445			
Swap:	7632	46	7585			

```
root@ubu01:~# vzlist
```

VEID	NPROC	STATUS	IP_ADDR	HOSTNAME
777	27	running	192.168.1.1	vps1
778	24	running	192.168.2.1	vps2

```
root@ubu01:~# vzcpucheck
```

```
Current CPU utilization: 3000
```

```
Power of the node: 281530
```

778 is a default centos5 32 bit template using 256 MB of ram

But 777 is the one that I am interested in with, it is an Ubuntu 8.04 64 bit default template running a webserver.

I would like to double its memory from 256MB to 512MB considering all the aspects of the default template.

Can you please give me an example of how to do this?

Thank you

Subject: Re: Allocate more RAM to a VPS
Posted by [divB](#) on Thu, 03 Sep 2009 12:02:39 GMT
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1.) Are you sure the memory is shared? In what way? Where did you read this?

IMO the memory between containers can ONLY be shared when the program/library images (files) point to the same file. Only then the Linux kernel can see that the code is the same and share the memory (this is done in Linux without virtualization). But if there are two different apache2 ELF files in different containers the Kernel can't say that these two are identical and loads both of them.

2.) No, I can't. Read my posting. Without guarantee, I would just scale the 256MB container with 2 in order to get a 512 container as described in http://wiki.openvz.org/Intermediate_UBC_configurations.

Maybe another way: $512\text{MB} = 536870912 \text{ Bytes} / 4096 = 131072 \text{ Pages}$. Set vmguarpages to this value and run vzcfgvalidate. Again: Without guarantee. Read the Wiki!!

Subject: Re: Allocate more RAM to a VPS
Posted by [dragos2](#) on Thu, 03 Sep 2009 12:22:50 GMT
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This link helps, thank you
http://wiki.openvz.org/UBC_derived_configuration_examples

The only hard thing to do correctly now in OpenVz is correct memory allocation to containers.

Maybe in future releases this will be a little more intelligible.

Are there vps.large vps.extralarge os template configurations ?

Subject: Re: Allocate more RAM to a VPS
Posted by [divB](#) on Thu, 03 Sep 2009 13:07:29 GMT
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No, but the manuel says that you should create large and extralarge configurations with scaling.

Subject: Re: Allocate more RAM to a VPS
Posted by [dragos2](#) on Thu, 03 Sep 2009 13:21:48 GMT
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divB wrote on Thu, 03 September 2009 16:07No, but the manuel says that you should create large and extralarge configurations with scaling.

Scaling or vzsplrit seems to be the best choices.

Thanks
