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Subject: vmalloc size (trobles with nvidia-glx)

Posted by [Alexander GQ Gerasiov](#) on Wed, 16 Apr 2008 20:44:31 GMT

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Hello there.

I'm using OpenVZ on my desktop, where I use nvidia-glx. When I tried to switch to OpenVZ I met strange problem: Xserver fails to start with message

```
(EE) NVIDIA(0): Failed to initialize the NVIDIA graphics device PCI:1:0:0.
```

```
(EE) NVIDIA(0): Please see the COMMON PROBLEMS section in the README for
```

```
(EE) NVIDIA(0): additional information.
```

```
(EE) NVIDIA(0): Failed to initialize the NVIDIA graphics device!
```

After digging a bit, I found that the problem is in the failed vmalloc call. nvidia want ~70M of memory and together with openvz they ran out of default limit in 128M.

So the 1st question: is that normal, that OpenVZ without any VE eats 45Mb more memory from vmalloc space, that default kernel?

If that's normal, what for? (Just interesting.)

And if that's normal, may be you should override default limit in

OpenVZ patch? For now I used vmalloc=256m in kernel's command line, but this is not trivial to found out the problem for normal not skilled user.

--

Best regards,  
Alexander GQ Gerasiov

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Subject: Re: vmalloc size (trobles with nvidia-glx)

Posted by [Vasily Averin](#) on Thu, 17 Apr 2008 05:43:25 GMT

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Hi Alexander,

Alexander GQ Gerasiov wrote:

> Hello there.

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> switch to OpenVZ I met strange problem: Xserver fails to start with

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>  
> After digging a bit, I found that the problem is in the failed vmalloc  
> call. nvidia want ~70M of memory and together with openvz they ran out  
> of default limit in 128M.

Thank You very much for Your investigation. We have got several reports about huge vmalloc allocations but did not have access to the customers nodes and were not able to investigate such cases.

> So the 1st question: is that normal, that OpenVZ without any VE eats  
> 45Mb more memory from vmalloc space, that default kernel?  
> If that's normal, what for? (Just interesting.)

It is unexpected for me.

OpenVz kernel can use a bit more vmalloc than usual kernel -- but 45Mb is too high usage IMHO.

That is vmalloc usage from our test node where 19 VEs are running  
(rhel5 based kernel 2.6.18-028stab053.10-ent, node with 512 Mb RAM)

```
[root@vzlin30 ~]# cat /proc/meminfo | grep Vmalloc  
VmallocTotal: 3637240 kB  
VmallocUsed: 19224 kB  
VmallocChunk: 3617844 kB
```

As you can see only 19 Mb Vmalloc is used.

> And if that's normal, may be you should override default limit in  
> OpenVZ patch? For now I used vmalloc=256m in kernel's command line, but  
> this is not trivial to found out the problem for normal not skilled  
> user.

Could You please tell me a bit more details about Your node/kernel?

thank you,  
Vasily Averin

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Subject: Re: vmalloc size (troubles with nvidia-glx)  
Posted by [Kirill Korotaev](#) on Thu, 17 Apr 2008 14:00:09 GMT  
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Can you please cat /proc/meminfo after loading OVZ kernel w/o NVIDIA driver?  
It's strange and OVZ shouldn't allocate so much memory...

My only guess is that you have a lot of iptables rules which are allocated in vmalloc.

If not, plz create bug in bugzilla.

Alexander GQ Gerasiov wrote:

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