

# VMs using ESX swap file, despite ESX ...

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[hennish](#) 36 posts since

Sep 15, 2007

Hi. I'm getting a lot of warnings from my vFoglight monitoring tool, such as:

*"The Memory Control Driver for virtual machine <VM name> will not deflate. The VM is unable to reclaim memory that is allocated to it. Add more physical resources to the server or use VMotion to move the VM to better balance utilization across servers in the cluster."*

*"The Memory Control Driver for server <host server> is not able to deflate the balloon for its virtual machines. Add more physical memory to the server or use VMotion to better balance utilization across servers in cluster. This rule checks for servers working really hard to reclaim memory. Add more physical resources to the server or use VMotion to better balance utilization across servers in the cluster."*

*"VM has moved virtual machine memory from physical pages to the VMWare swap file within ESX. This may adversely affect performance on this VM."*

Virtual Center's performance graphs show that the ESX server(s) in question are in fact using between 100-150 MBs of swap memory, and vFoglight does show that the VM(s) in question are using between 50 and 100 MBs of swap memory. This is despite the fact that the ESX servers are only using between 25 and 40 % of their RAM.

Balooning seems to be at zero everywhere.

Any ideas?

Tags: esx3.5, swap, memory, ram



[depping](#) 2,997 posts since

Jan 17, 2005 **1. Re: VMs using ESX swap file, despite ESX having free RAM** May 28, 2009 3:57 AM

You might want to check the virtual machines on "limits". If a limit is set on memory it will either swap or balloon.

Duncan

VMware Communities User Moderator | VCP | VCDX

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Blogging: <http://www.yellow-bricks.com>

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Jun 27, 2006 **2. Re: VMs using ESX swap file, despite ESX having free RAM** May 28, 2009 4:09 AM

Hi,

Read the memory management series from Arnim van Lieshout for a better understanding so that you can troubleshoot properly.

<http://www.van-lieshout.com/2009/04/esx-memory-management-part-1/>

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<http://www.van-lieshout.com/2009/05/esx-memory-management-part-2/>

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Wil

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Visit the VMware developers wiki at <http://www.vi-toolkit.com>



[hennish](#) 36 posts since

Sep 15, 2007 3. **Re: VMs using ESX swap file, despite ESX having free RAM** May 28, 2009 4:51 AM

👤 in response to: [depping](#)

Hi. Thanks for the quick reply.

I've checked the resource settings for all VMs, and everything is set to "Normal" and all the checkboxes for "Unlimited" are checked.



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Jan 17, 2005 4. **Re: VMs using ESX swap file, despite ESX having free RAM** May 28, 2009 5:01 AM

👤 in response to: [hennish](#) Possible resource pools limitation? if that's not the case I suspect that vFoglight is giving you the wrong information. You could always use ESXTOP of vCenter to see if any swapping is going on.

Duncan

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Sep 15, 2007 5. **Re: VMs using ESX swap file, despite ESX having free RAM** May 28, 2009 5:15 AM

👤 in response to: [depping](#)

Sorry, I forgot to mention that I also checked the Resource Pools for limits, and they were also "all clean".

This is a fairly small environment, with 3 ESX servers and 20 VMs, and since it only uses ~ 10 % CPU and ~ 35 % of it's total RAM, there are no resource pool limitations, nor any "competition" for resources as it looks.

I did check the swap and balloon values in vCenter, but I haven't got COS access, so I can't check esxtop just yet.

/Anders