

Guest OS' virtual disk block size ...



[Sharantyr](#) 35 posts since

Jan 8, 2009

Hello,

I read smewhere in these forums (can't remmember where) that there is an issue about block size of virtual disks. It was stated that the block size of virtual disks needed to be synchronized with the actual blocksize of the vmfs datastore, and if not, this could cause CPU unwanted consumption.

Any facts about this?

Thanks Tags: esx, vhd, block, size



[SuryaVMware](#) 489 posts since

Nov 14, 2008 **1. Re: Guest OS' virtual disk block size optimization** Jan 12, 2009 9:49 AM

Block size inside the VM should not be an issue. You must have heard about the partition alignment. Look through the below links for more explanation.

Block Size in VMDK.

http://www.vmware.com/pdf/wwc_performance.pdf

Partition Alignment

<http://communities.vmware.com/servlet/JiveServlet/download/2409-117516-821464-4435/NetappDisk+Alignment+on+Virtuals+-+3593.pdf>


Let me know if this information is useful.

-Surya



[Sharantyr](#) 35 posts since

Jan 8, 2009 **2. Re: Guest OS' virtual disk block size optimization** Jan 15, 2009 7:20 AM

 in response to: [SuryaVMware](#)

Hi,

Because of my bad english, your answer was not what I was expecting. But anyway, it was helpfull and I have some questions :

Netapp recommends starting offset divisible by 4096, is that because their LUN has 4096 chunk size? So if I have another storage solution, example SAS RAID, I should get the stripe size and then my starting offset must be divisible by it?

Also, about partition alignement, I understood the 3 levels that needs to be aligned : vmdk, vmfs, raid stripe size, is this right?

Also, ESX 3 automaticly align new created datastores, but what about the default datastore created uppon installation? Is it aligned?

My case : A server with local raid5 storage (1.5To) that will be used for VM OS virtual disks. And external storage for data.

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During the installation of ESXi, I choose use all the local storage for ESXi. Is that storage aligned? Because I don't see 128 as starting offset, BUT, it's divisible by 128 (starting offset is 9922560)

Thanks.



[SuryaVMware](#) 489 posts since

Nov 14, 2008 3. **Re: Guest OS' virtual disk block size optimization** Jan 15, 2009 3:41 PM

 in response to: [Sharantyr](#)

Would you be using the local storage for Virtual Machines? if not you dont have to worry about local VMFS volume offset.

Your local VMFS volume on the ESXi boot device will not start at 128 because you will need other partitions for the ESXi installation itself and these partitions will take the first blocks.

-Surya