

Re: DPC in Windows 2003

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- *From:* "Andrew Sha" <universalkludge@xxxxxxxxxxx>
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I wonder where the check against the buffer size and alignment (sector size) is performed. Another words – is it kosher to fail requests that are not aligned in address and/or size against the reported volume sector size in the storport (scsiport, ataport) framework? It is to be checked in the storport (or such), is not it? So you are not supposed to get such requests at all if so. Anybody w/ comments?

"Alexander Grigoriev" <alegr@xxxxxxxxxxx> wrote in message news:u92EOtkRIHA.5524@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Per Win32 API requirements, buffers for FILE_FLAG_NO_BUFFERING must be aligned on sector size. You won't get misaligned buffers.

"Maxim" <Maxim@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message news:52706696-21F0-4874-B42C-10667C50FDA2@xxxxxxxxxxxxxxxxxxxx

Why do you need anything else beyond the SG list to handle that?

Because my device supports accesses only in multiples of 128 bytes – i.e. each DMA element must be a multiple of 128 bytes. Lets say I specify SCSI block size of 512 and that a user program requests a 4K transfer. What I see happening is that depending on the alignment of the buffer in the user program, I might be presented with a 2 element SG list, consisting, for example, of 200 byte element and a 4K-200 element. Such transfers would not be supported by my device, i.e. I have to transfer to a temporary buffer and then copy. Inefficient but I have no choice. Fortunately, seems like most OS services allocate buffers that are at least page-aligned. The one offending program that doesn't is "format". There are others, of course.

Any ideas about the questions I ask in the previous post? Thanks!

