

Improving filesystem access on a remote fileserver

Asked 15 years, 8 months ago Modified 12 years ago Viewed 730 times



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I have a large file server machine which contains several terabytes of image data that I generally access in chunks. I'm wondering if there is anything special that I can do to hint to the OS that a specific set of documents should be preloaded into memory to improve the access time for that subset of files when they are loaded over a file share.

I can supply a parent directory that contains all of the files that comprise a given chunk before I start to access them.

The first thing that comes to mind is to simply write a service that will iterate through the files in the specified path, load them into process memory and then free the memory in hopes that the OS filesystem cache holds on to them, but I was wondering if there is a more explicit way to do this.

It would save a lot of work if I could re-use the existing file share access paradigm rather than requiring the access to these files to go through a memory caching layer.

The files in question will almost always be accessed in a readonly manner.

I'm working on Windows Server 2003/2008

windows

memory

filesystems

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edited Apr 12, 2009 at 19:04



Clayton

918 ● 1 ● 6 ● 13

asked Apr 3, 2009 at 16:07



Rappa

intersystems-cache is not an appropriate tag for this question. That tag refers to the platform described at the following website intersystems.com/cache/index.html.

– Brian Pellin Apr 3, 2009 at 18:39

1 Answer

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0



Two approaches come to mind:

1) Set the server to be optimized for file serving. This used to be in the properties for file & printer sharing, but seems to have gone away in Windows 2008. This is set via the registry in:



HKLM\SYSTEM\CurrentControlSet\Control\Session Manager\Memory Management\LargeSystemCache=1

HKLM\SYSTEM\CurrentControlSet\Services\Lan
manServer\Parameters\Size=3

<http://technet.microsoft.com/en-us/library/cc784562.aspx>
as ref.

2) Ensure that both endpoints are either windows
2008/windows 2008, or windows 2008/Vista. There are
significant performance improvements in SMB 2.0 as well
as the IP stack which improve performance greatly. This
may not be an option due to cost, organizational
constraints, or procurement lead time, but I thought I'd
mention it.

<http://technet.microsoft.com/en-us/library/bb726965.aspx>
as ref.

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edited Dec 4, 2012 at 10:39



Marcin Orlowski

75.6k ● 11 ● 127 ● 152

answered Apr 3, 2009 at 18:13



JohnW

3,022 ● 1 ● 29 ● 30
