

microsoft.public.windows.server.general: Re: Choosing the proper disk setup. I need help and advice.

## Re: Choosing the proper disk setup. I need help and advice.

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**From:** Guadala Harry (*GMan\_at\_NoSpam.com*)

**Date:** 09/24/04

Date: Fri, 24 Sep 2004 15:53:24 -0700

A couple of thoughts.

<<I have a SQL based application that has grown too taxing for the hardware it currently resides>>

It appears that your solution is to increase I/O capacity... but have you established that inadequate disk I/O is in fact causing your performance problems? If not, then other likely culprits would be inadequate RAM, inadequate CPU speed (or number of CPUs), or network I/O as the bottleneck. Oh, and a lack of good indexes in your database can contribute significantly to causing poor performance – and that is easy to fix (just good indexes) – oh, and poorly written queries or other data access logic...

Assuming you have eliminated those other likely suspects and disk I/O is in fact the bottleneck, we need to answer your question –

<<Will the performance increases be worth using this configuration?>>

That's too difficult to answer with any reasonable feedback without knowing how bad things are right now (specifically in terms of I/O bottlenecks), your current disk configuration... We don't have enough info with which to compare your proposed disk configuration. And finally, *\*worth it\** is highly subjective.

Finally, suppose the proposed disk subsystem may in fact be the worst bottleneck in your system... but the next bottleneck is right on it's heels.... you get the idea.

It might be helpful to run some performance counters and actually measure the extent to which of the likely suspects listed in my above blathering are at within acceptable limits. Then you'd have an objective measure against which you can know that any hardware changes actually improved things. You could do before/after measures and be able to communicate to others exactly how much better off you are (or aren't).

Of the possible ways to improve system performance from a hardware perspective, going to a whole new disk subsystem is perhaps the most expensive and time-consuming, therefore (you fill in the blanks...).

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Good Luck.

"ComfortablySAD" <ComfortablySAD@discussions.microsoft.com> wrote in message news:F0D6AAC5-4080-4BE3-8DAD-F13D2A1CED63@microsoft.com...

> Hello,

>

> I have a SQL based application that has grown too taxing for the hardware it

> currently resides. This application has recommended hardware setups, and best

> practice documentation on how to achieve best performance. From these

> documents I know how to best arrange the file system per "best practices".

My

> questions mainly have to do with hardware, but I'd also like to get feedback

> on the actual performance increases of these recommendations.

>

> This application uses four main files to run. The best practices say to make

> sure these four files on four separate physical disks to increase

> performance. This makes sense seeing how the processors can then write to all

> four simultaneously. Here is the setup I had in mind and the file suggested

> to be on a separate disk is in \*'s.

>

> Server- Dual Xeon 3.2Ghz 2MB Cache, 4GB RAM

> (2 x because the disks will be mirrored.)

> 2 x 18GB 15K ----> Operating System \*.tmp files\*

> 2 x 36GB 15K ----> \*Main database file\*

> 2 x 18GB 15K ----> \*Main transaction log file\*

> 2 x 18GB 15K ----> \*Operating System Paging File\*

>

> Now this seems like a lot of disks to me, but it does follow all best

> practices. It will also mean I'd have to set up four separate mirrors on the

> controller card. Will the performance increases be worth using this

> configuration? This is going to be Windows 2003 Server Standard edition and

> the SQL app is Sybase version 9. The main DB file will be roughly 2GB if that

> helps. And please suggest any configurations that may better suite my needs

> or post links to lead me in the right direction.

>

> Thanks,

>

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