

## Re: FS spanning across multiple disks

**Source:** <http://unix.derkeiler.com/Mailing-Lists/AIX-L/2004-07/0264.html>

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**From:** Green, Simon (*Simon.Green\_at\_EU.ALTRIA.COM*)

**Date:** 07/26/04

Date: Mon, 26 Jul 2004 13:38:02 +0200  
To: aix-l@Princeton.EDU

There's no specific disadvantage having an LV on multiple disks. It can make administration more complicated, and some tasks may take longer but that's more a function of the total size of the LV than the number of disks.

There can be performance advantages for direct access: if the LV is on four disks the you can have up to four concurrent accesses with no disk contention. (Read-only, of course, and it depends on what particular data they want.)

It's important to avoid LV fragmentation. You don't want the situation where the first chunk of the LV is on hdisk1, then there's some on hdisk2, then another chunk on hdisk1 etc. That can mess up sequential access. It's not a likely situation, though.

When you're mirroring with multiple disks, I would recommend creating the mirror **WITHOUT** synchronising it at first: only sync it once you've checked that the partitions are allocated where you want them.

For any mirrored LV that spreads onto more than two disks, (i.e. primary on one disk, copy on another), I would suggest that you use super-strict mirroring. Otherwise, it's possible to get the mirrors into a horrible mess which can be extremely complicated and time-consuming to sort out. This is less likely to happen if you always specify a map file when extending the LVs, (unless you get the map wrong, of course!).

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Simon Green

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AIX-L Archive at <https://new-lists.princeton.edu/listserv/aix-l.html>

New to AIX? <http://publib-b.boulder.ibm.com/redbooks.nsf/portals/UNIX>

N.B. Unsolicited email from vendors will not be appreciated.

Please post all follow-ups to the list.

> -----Original Message-----

> From: Kumar, Praveen (cahoot) [mailto:Praveen.Kumar@CAHOOT.COM]

> Sent: 26 July 2004 12:06

> To: aix-l@Princeton.EDU

> Subject: FS spanning across multiple disks

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> Hi,

## AIX-L: Re: FS spanning across multiple disks

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>     As a part of our capacity planning I am planning to increase a
> filesystem which is on a disk say hdisk1. The mirror copy of
> this exists on
> hdisk2. While adding space to the file system, I am picking
> some space from
> another 2 disks say hdisk3 and hdisk5 which have the mirror
> copies on hdisk4
> and hdisk6 respectively. (The disk containing this file
> system does not have
> free space any more)
>
> I want to know whether is there any disadvantage if my file
> system spans
> across 3 disks (Since mirrored it is 6 disks). This file
> system will have
> only two file that are very large.
>
> The file system does not have much IO, it has activity once a
> day that's
> all.
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