Re: Hard Drive Question

Source: http://linux.derkeiler.com/Newsgroups/alt.os.linux/2004−08/0867.html

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Date: 08/08/04

Date: Sun, 08 Aug 2004 17:44:16 −0400

−−−−−BEGIN PGP SIGNED MESSAGE−−−−−
Hash: SHA1

Wiseguy wrote:
[snip]
> These days drives are so large and interfaces are so fast that the old
> hardlined partition logic is usually overkill and needlessly complicated.
>
> that being said, for linux running on a single fast large hard disk, you
> should generally have three partitions.
>
> / should occupy less than 1024 cylinders and contain the kernel directories.
>
> The reason being that iirc the linux kernel must reside below the 1024
> cylinder to be found by the boot loader.
>
> the next partition will be swap and it is generally accepted that it should
> be twice the size of real RAM, up to about 512MB, as others have noted.
>
> Really, you don't need bunches of other partitions. For a home machine
> I would just create one additional partition for /usr /home etc and
> symlink those base directories to points in that uber partition.
[snip]

I disagree. There are many good reasons to partition your drives, including

* Make intellegent use of disk space by reserving space for future expansion of your filesystems

* To perform optimization of disk access resources by placing heavily used disk resources closer to optimum seek point of the disk

* To impose restrictions on the size of certain directory subtrees (i.e. /tmp or /var/spool/lpd) to ensure that they do not grow beyond certain preset sizes.

* To facilitate backup and recovery by enabling volume backups as well as directory tree/subtree backups

* To reduce the time taken by the boot up filesystem check, by reducing the amount of filesystem checked at any one time, and by permitting the filesystem check to parallelize it's operations.

* To facilitate upgrades by ensuring that the upgrade process doesn't delete or reformat certain directory subtrees (like /tmp or /var/spool/news) as part of the installation/upgrade process

* To restrict online access to certain directory subtrees (i.e. the boot partition) by ensuring that they are not mounted when they are not needed.

* To provide alternate (or recovery) directory subtrees, by offering offline space for image archives of critical directory subtrees, or by providing space for alternate versions of the directory subtrees (i.e. a "recovery" root fs)

* To provide alternate filesystem formatting (journal fs vs unjournaled fs), to meet the needs of the use of the filesystem (i.e. use journalling filesystems where recovery is required (like / or /home), and non−journalling filesystems where recovery is unnecessary (like /tmp or /var/tmp).

* To provide alternate filesystem blocksizes (1K, 4K, etc) to meet the needs of the use of the filesystem (i.e. smaller blocksizes for filesystems that store many small files vs larger blocksizes for filesystems that store large files).

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Lew Pitcher

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Slackware − Because I know what I'm doing.
−−−−−BEGIN PGP SIGNATURE−−−−−
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