

The Other, Bigger Cache

In the priority list of computing problems, 'storage' is probably the last. But changes in the way we work with PCs may make this the very first

What is as inevitable as death and taxes? The fact that your organisation will need more data storage space. Just some time ago, the techno-cool value of 'Storage' was about as much as that of paper clips.

But this was till the Internet happened, and almost everyone in an organisation got connected. And started downloading and storing megabytes instead of kilobytes. This was before presentation packages allowed us to create and store embedded videos. This was before digital cameras and home scanners combined to make sure that everyone had about nine hundred gigabytes of baby photos. And office workers used newly upgraded 4 GB hard drives to store their collection of MP3 songs.

Stash, and please pay Cash

Seagate, the world leader in desktop storage devices (basically hard drives) has made a campaign out of a theme that stresses the fact that an organisation's data needs double every year, and if it is connected to the Internet, they double every six months.

Collaborative software, increasing usage of e-mail, increasing install sizes of software applications and the digitisation of historical data means that we need more and more storage space for which we have to pay more and more.

Yes, it is correct that the cost per unit of storage has been falling very sharply. According to American market research firm Dataquest, the price per bit of information storage is dropping at a rate of 35 percent per year.

This means that the money that you spend for buying 100GB of storage, could buy you nearly double that amount in two years. But unfortunately, given Seagate's prediction, in two years you will need four times that, therefore still have to spend double. The reducing levels of costs do not



Even at the most mundane of data-storing organisations, the awareness of data storage as a problem has risen manifold

appear to be able to outpace the increasing need for data. This is what has spurred some companies to make a killing.

Gather and multiply

Little-known EMC is a \$4 billion company whose stock has climbed more than 200 percent last year, making it the best performing stock (after Dell) in the Standard & Poor stock index in the entire last decade. EMC does not survive on a brilliant idea or on cutting-edge technology, although it has invested over \$1 billion in R&D in the last five years. It makes integrated hardware and software solutions data storage. Its CEO says that they will spend another billion dollars on R&D, and so it has bet its future on one fact, that organisations are going to need more and more storage space.

EMC is now snug in a market that was worth \$10 billion last year and will grow

to \$35 billion two years from now.

The Hoard Ahead

Faced with this inevitability, the technology-using world is likely to go down several paths. More companies will make a business out of offering storage facilities for the data of other companies on a pay-per-byte basis. They will be the godowns of the networked world. Once the problem of bandwidth is eased, others may choose to use the Internet to offer free storage to certain categories of people and then use them as targets of advertising. Much as an innovative company called Free Drive is now offering 10 MB of Web space to iMac users, who alas, have been deprived by Apple of the lowly, but useful, floppy.

Others may even dilute the example of FreePC, an American company that gave a way free computers to qualified respondents in exchange for storing and displaying advertising from half of their hard drive space. Want a larger hard drive? Upgrade

free in return for the pain of being forced to watch advertising messages in every software application that you use.

Organisations that use data will formulate policies to control its inflow and capture and simply reduce the size of the problem they have to deal with. Advanced forms of data compression may solve this problem further.

And of course, home users will keep buying more and more Zip disks and other removable storage media, till they pile up like wedding videos—taped with enthusiasm and forgotten with speed. Till a system of more sensible data management is forced upon them.

So ultimately a combination of technology and common-sense will prevail and data storage will not be a problem at all. Till that time, buy every share of EMC, Iomega and Seagate that you can afford.

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