

## Mitsubishi, Hitachi eye disc for cloud computing era

August 6 2009, The Yomiuri Shimbun

Hitachi Ltd., Mitsubishi Chemical Corp. and some other organizations plan to jointly develop a next-generation optical disc that can store 25 times more data than a Blu-ray Disc, with the aim of putting the technology into practical use in 2012, industry sources said this week.

The next-generation one <u>terabyte</u> disc will be designed to complement cloud computing, which allows for the storage of data and information offline on interconnected databases. It also would increase the efficiency of personal computers.

According to the sources, the next-generation disc will employ hologram technology, in which a laser is used to write 3-D images to record and reproduce data.

The greatly increased <u>data-storage</u> capacity of the new disc is achieved by storing data not only on its surface but also within the disc.

Tokyo University of Science and some other entities will participate in the joint development of the disc with <u>Hitachi</u>, <u>Mitsubishi</u> Chemical and their group companies.

In late July, these organizations jointly established a technical research consortium that is entitled to preferential tax treatment.

The companies and partners plan to invest a total of about 10 billion yen in the project over the next three years.



An increasing number of companies have turned to cloud computing to save time and cost, especially when carrying out large-scale system upgrades. Cloud computing refers to the storage of data on databases, servers and computer networks, which can be viewed on a PC via an application when needed, reducing reliance on software.

Therefore, such companies in particular have been urged to expand the data-storage capacity of the servers in their data centers.

The capacity of current PC hard discs is as high as about two terabytes, which is much larger than the up to 50 gigabytes offered by Blu-ray Discs.

Though hard discs offer a convenient way to frequently access data, PCs must be kept on standby to allow fast access to data, which results in high power consumption.

If a combination of hard disc storage and optical disc storage are used based on the frequency data is accessed, it has been estimated that power use per PC could be cut by about 40 percent.

In cloud computing, software such as those for document management and e-mail are not stored on a PC. Users instead access software held on servers at data centers via an Internet-linked application. Thus <u>cloud</u> <u>computing</u> also reduces the burden on computers, allowing less powerful models to be used effectively.

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Citation: Mitsubishi, Hitachi eye disc for cloud computing era (2009, August 6) retrieved 14 May 2024 from <u>https://phys.org/news/2009-08-mitsubishi-hitachi-eye-disc-cloud.html</u>

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