Hitachi Delivers New Power-Efficient Terabyte Hard Drive

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Hitachi Global Storage has announced today the Deskstar 7K1000.B, the world's most energy-efficient 7,200 RPM one terabyte (1TB) hard drive.

The Deskstar 7K1000.B provides an exceptional blend of power efficiency and performance, making it an ideal solution for power-friendly consumer and commercial PCs. The new three-disk design improves idle power consumption up to 43 percent over its 1TB predecessor, which was already among the industry's most energy efficient hard drives. Increased protection against data loss and piracy is provided via Bulk Data Encryption (BDE) which is available as an optional feature to users. Hitachi is also shipping the Deskstar E7K1000, designed to provide high-capacity storage for low-duty-cycle, 24x7 applications.

Hitachi debuted the industry's first 1TB hard drive in January 2007 to address consumers' insatiable appetite for storage capacity. Entire libraries of photos, movies, music and games are increasingly being stored and accessed from a variety of digital entertainment devices within the home and a plethora of mobile devices. As the distribution of video content to social networking sites and to handheld devices becomes more commonplace, storage capacity requirements will only continue to increase. Hitachi's latest terabyte drive delivers the performance and capacity required for today's increasingly mobile digital lifestyle.

The new 7,200 RPM, 3.5-inch drives are available in a range of

capacities from 160GB to 1TB. The drives are built using Hitachi's proven and patented perpendicular magnetic recording (PMR) heads and disks, delivering a maximum of 375GB of storage per disk with a high level of reliability.

"Hitachi pioneered the industry's first terabyte hard drive, so we are pleased to see how the market for high capacity desktop and laptop drives has grown substantially in the past year," said Larry Swezey, director, Consumer and Commercial HDD Marketing and Strategy, Hitachi Global Storage Technologies. "Now through the application of Hitachi's advanced head, media and channel technologies, we can bring to market a terabyte drive using only three disks that has advanced performance and best-in-class power consumption. This will allow us to take the next step in making terabyte technology available and affordable in the personal storage, consumer electronics, desktop and enterprise segments."

By applying Hitachi's seventh-generation power management technology and innovations pioneered on the popular 2.5-inch Travelstar line of mobile hard drives, the Deskstar 7K1000.B delivers best-in-class power management and thermal emissions to help manufacturers meet or exceed energy compliance targets.

Power consumption has become an important factor in technology purchase decisions, with an increasing number of consumers now actively seeking out products that are ENERGY STAR compliant. The ENERGY STAR 4.0 specifications released by the U.S. Environmental Protection Agency (EPA) are recognized worldwide as a way to identify energy-efficient PCs and other computer equipment. PCs that meet the ENERGY STAR 4.0 criteria are expected to become increasingly popular by consumer and commercial customers for years to come. Some corporations are choosing to purchase ENERGY STAR PCs as part of their "green" initiatives. The low power characteristics of the

Deskstar 7K1000.B hard drive contribute to a reduction in overall system power requirements, which helps PC manufacturers achieve ENERGY STAR ratings.

"With rising energy costs, power concerns are likely to migrate from the datacenter to compute hardware that is spread across an entire organization, including desktop PCs," according to John Rydning, IDC's research director for hard disk drives. "Hitachi is doing its part to enable more power efficient PCs by reducing the power consumption of the hard drive, as demonstrated with its newest one terabyte drive designed especially for desktop PC applications."

The Deskstar 7K1000.B also features optional Bulk Data Encryption (BDE) for hard drive-level data security. Previously, data on a hard drive could be protected either through software-based encryption or a system-level password. However, hard drive-level encryption provides improved performance and a higher level of security than any of the previously available options.

When employing bulk data encryption, data is scrambled using a key as it is being written to the disk and then descrambled with the key as it is retrieved. Thus, data encryption at the hard-drive level represents a more sophisticated approach of securing users' data and is generally considered to be virtually impenetrable. The Deskstar 7K1000.B uses an Advanced Encryption Standard (AES) that has been certified by the National Institute of Standards and Technology (NIST) to deliver the strongest commercially available data security protection. Only hard drives that have received this certification are eligible to be used by the U.S. government for national security applications.

Hitachi also announced today the Deskstar E7K1000, a drive designed for business critical storage systems where a combination of power, reliability and performance is of critical importance. The drives ship

with a 32MB buffer, five-year warranty, 1.2 million hour Mean Time Between Failure (MTBF) and Rotational Vibration Safeguard (RVS) technology for robust performance in multi-drive environments. The Deskstar E7K1000 has the same low power characteristics and optional encryption technology as its desktop-class counterpart, but was specifically designed for use in nearline storage for deep data archival and other high density storage environments.

The new Deskstar drives feature a SATA 3Gb/s interface, which supports important features such as hot-swap capability for very high availability, Native Command Queuing (NCQ) for enhanced performance and staggered spin-up for power savings.

The Deskstar 7K1000.B and Deskstar E7K1000 will ship to customers worldwide in July.

Source: Hitachi

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