



Toshiba Collaborates with PROMISE Technology on Providing the Optimal Data Storage Technology for CERN's Large Hadron Collider

A new video reflecting the long-term cooperation is now live

Düsseldorf, Germany, 5 November 2024 – Toshiba Electronics Europe GmbH (Toshiba) today announces a new video that showcases its successful partnership with PROMISE Technology to deliver enhanced data storage capabilities to CERN, the European Organization for Nuclear Research, home to the world's largest and most powerful particle accelerator, the Large Hadron Collider (LHC). The video explores how the collaborative partnership has been instrumental in fulfilling CERN's mission by delivering robust storage systems and cutting-edge hard drives to support its groundbreaking research.

The LHC's collision detectors, which run 24/7, generate approximately 1TB of data per minute, necessitating robust and reliable data storage. Since 2008, CERN has used PROMISE Technology's [24-bay JBOD VTrak J5800](#) HDD enclosures, with some of the earliest systems still operational today. CERN has also used Toshiba's Enterprise Capacity HDDs, starting with capacities of 4TB^[1] over ten years ago to the [MG09 Series Enterprise Capacity 18TB HDDs](#).

During this time, the two companies supported CERN in scaling up the storage capacity at its central data center, which sends this data to more than 170 research institutes around the world for analysis. Today, this storage system has reached a capacity of more than one Exabyte, which is one thousand Petabytes or a million Terabytes, realized with more than 120,000 HDDs sitting in more than 4,000 JBOD enclosures.

Building on this success, PROMISE Technology developed a new 60-bay JBOD model, the [VTrak J5960](#). The JBOD storage system incorporates 'Greenboost' technology, a suite of energy-saving innovations that can reduce power consumption by up to 30%. In the HDD application lab, Toshiba completed early testing PROMISE Technology's 60-bay JBOD with its [Enterprise Capacity MG10 Series 20TB HDDs](#), and confirmed data- and cooling performance and power efficiency, which aligns with the global push towards more sustainable and environmentally friendly data management practices.

About this collaboration achievement in data storage Eric Bonfillou, Deputy Group Leader of CERN's IT Fabric group states: "In our quest to unravel the mysteries of the universe, we need partners who understand the importance of data storage, reliability, and efficiency with solutions that are tailored to our unique needs."

"The energy crisis is now a real challenge to all enterprises, including CERN," Alice Chang, Chief Marketing Officer, PROMISE Technology. "The VTrak J5960 offers a well-rounded solution to solve this dilemma, and we are confident that Toshiba's Enterprise Capacity HDDs, installed and operated in this JBOD, will support CERN's future need for growing data storage capacity in a reliable and energy-efficient way."

"At Toshiba, we are very proud to support CERN's activities with Enterprise Capacity HDDs," says Rainer W. Kaese, Senior Manager Business Development, Storage Products Division at Toshiba. "We continue to develop higher capacities, up to 30TB and beyond, as HDDs are and will remain essential for storing the exabytes of data that CERN and the entire world produce in a cost-effective and energy-efficient manner."

While the video celebrates the collaborative work with CERN, the focus remains on the technological advancements and the future of data storage at the research facility. Toshiba and PROMISE Technology are committed to providing solutions

that ensure the LHC's research continues without interruption, contributing to our understanding of the universe.

You can watch the new video here: <https://youtu.be/1zuEVfu77QQ>

For more information on Toshiba's full line of HDD storage products, please visit: toshiba-storage.com or toshiba.semicon-storage.com.

Notes:

[1] Definition of capacity: One terabyte (TB) = one trillion bytes, but storage capacity actually available may vary depending on the operating environment and formatting. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

* Information in this document, including product prices and specifications, content of services and contact information, is current and believed to be accurate as of the date of the announcement, but is subject to change without prior notice.

* Company names, product names, and service names mentioned herein may be trademarks of their respective companies.

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About Toshiba Electronics Europe

[Toshiba Electronics Europe GmbH](http://toshiba-electronics.com) (TEE) offers European consumers and businesses a wide variety of hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. Next to HDDs, the company's broad portfolio encompasses power semiconductors and other discrete devices ranging from diodes to logic ICs, optical semiconductors as well as microcontrollers and application-specific standard products (ASSPs) amongst others.

In addition, TEE also offers Toshiba's SCiB™ battery cells and modules with lithium titanium oxide (LTO) for heavy-duty applications and Silicon Nitride (SiN) ceramic substrates used in power semiconductor modules, inverters and converters for their heat dissipation characteristics and strength.

TEE has its headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing marketing, sales and logistics services.

Visit Toshiba's websites at www.toshiba-storage.com, www.toshiba.semicon-storage.com, www.scib.jp/en and www.toshiba-tmat.co.jp/en/ for further company and product information.

About PROMISE Technology:

PROMISE Technology is a recognized global leader in streaming data storage with more than 30 years of experience. Powered by its proprietary PromiseRAID and Boost Family of technologies, the brand's innovative

solutions are tailored to the Surveillance, Rich Media, Cloud and IT markets' unique needs. PROMISE's highly experienced sales and engineering teams are strategically located throughout the Americas, EMEA, JAPAC, and China regions to provide unparalleled services and support to its customers around the globe. For more information, please visit: <https://www.promise.com/>

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